University of Alberta

Understanding ενεργεια:

Activity, Motion and Actuality in Aristotle

By

Paul William Beach ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Arts

Department of Philosophy

Edmonton, Alberta

Fall 2000

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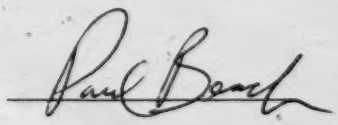

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ABSTRACT

This thesis is an attempt to determine the use and meaning of Aristotle's central philosophical term ενεργεια. The interpretive strategies of Daniel Graham, George Blair, John Rist and Stephen Menn are evaluated. Ενεργεια is examined in its relation to three other key terms: δυναμις, κινησις and εντελεχεια. With regards to δυναμις, the development of ενεργεια *qua* activity is traced through discussions of powers, potentiality, possibility and the Megarian challenge. The relation of ενεργεια and κινησις is clarified through discussions of incompleteness, the tense test and the definition of motion. The ontic sense of ενεργεια is explained in comparison with the actuality term εντελεχεια. My developmental account explains the several senses of ενεργεια, enabling a clear and well-supported understanding of this principal Aristotelian concept.

University of Alberta

Faculty of Graduate Studies and Research

The undersigned certify that they have read, and recommended to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled Understanding Ενεργεια: Activity, Motion and Actuality in Aristotle submitted by Paul William Beach in partial fulfillment of the requirements for the degree of Master of Arts.

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Thesis Approval Date: 20 May 2000

For Marla,
my love, my angel.

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Introduction

This paper is the result of a year of research into the meaning of ενεργεια. When I began this study I had little appreciation for the difficulties of the task. I was reading through Aristotle's Nicomachean Ethics when my curiosity was roused by the definition of ευδαιμονια as "the activity of the soul in accordance with complete excellence"(1102a5). As is my method, I traced down other texts that revealed Aristotle's notion of ψυχη and αρετη. I was, however, confounded in my attempts to determine the meaning of ενεργεια (translated as 'activity' in the above passage). The most surprising turn was that the secondary literature references tended to translate ενεργεια as *actuality* rather than *activity*. So, my preliminary study raised more problems than it solved. When it came time to chose a topic for my Master's Thesis I decided that it was the perfect opportunity to resolve the issue regarding the meaning of ενεργεια, once and for all. Such were my good intentions prior to delving into the copious reservoir of secondary literature on the subject.

My initial survey of passages in which the term 'ενεργεια' is employed, from almost every book in the vast Aristotelian corpus, impressed upon me the value of a firm understanding of its meaning and use. Ενεργεια is used in the explanation and definition of such diverse concepts as virtue, happiness, friendship, wealth, Being, motion, soul, God, pleasure, and thought. It is used to explain everything from dreams to making love to the twitching of dead chameleons.[1] While Aristotle does not ever clearly define ενεργεια, it occurs in key arguments throughout the range of his writings, including the treatises on metaphysics, physics, biological sciences, ethics and politics. An understanding of what Aristotle intended ενεργεια to mean will serve to clarify these arguments. Although there is an extensive tradition of scholarship regarding the concept of ενεργεια, there is no consensus on exactly what the term means, how its meaning

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[1] Ενεργεια occurs 8 times in On Dreams, the act of love is referred to in Topics 106b3, and the continued activity of a chameleon after death is described in History of Animals, 503b23.

developed or how best to translate it. Nor is it clear how ενεργεια relates to other principal Aristotelian concepts, such as δυναμις, κινησις, εντελεχεια and ειδος. The task of this paper will be to trace the development of the meaning and conceptual function of the term 'ενεργεια'.

Most published studies of ενεργεια have focussed on analytical plurality; that is to say, they are concerned with separating out distinct senses of ενεργεια in order to render certain problematic passages coherent (of which Graham's theory is the most overt example). An adequate account, however, ought to propose some sort of interpretive synthesis, i.e. a thorough interpretation should explain why Aristotle would use the same term to denote several senses. My account will assert four distinct though related senses of ενεργεια: ενεργεια in the nascent, broad, strict and ontic senses. Ενεργεια in its earliest employment referred specifically to the exercise of a capacity. Ενεργειαι, broadly speaking, came to include all κινησεις, all exercise of faculty, and ultimately all activities in general. Ενεργειαι proper (or, in the strict sense) are complete, non-kinetic activities. Ενεργεια in the ontic sense is an extension of the term to cover the meaning signified by εντελεχεια, as applied by analogy to the categories of Being. In addition to these four senses there is the adverbial form, ενεργειᾳ, which extends from *actively* to *actually* prior to the extension of the nominal form.

In the first chapter I will survey various accounts of the development of ενεργεια. I will focus the survey on interpretive theories of Daniel Graham, George Blair, John Rist and Stephen Menn. This survey will bring out the problems and issues that an adequate account must address. It will lay out the *prima facie* contradictions, oddities and conceptual gaps that arise from Aristotle's variable use of the term. It will also establish the grounds of agreement, limiting the range of acceptable interpretation. In addition, I will provide an outline of my own developmental thesis, and how the various senses of ενεργεια fit into it. In the second chapter I will discuss the early development of ενεργεια, especially in contrast to its correlate δυναμις. Ενεργεια will be contrasted with κινησις in the third chapter. The fourth chapter will examine

ενεργεια in relation to εντελεχεια. I will conclude with a brief evaluation of the virtues of my interpretation. [2]

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[2] My evaluation of Daniel Graham's interpretation is based on his book Aristotle's Two Systems (Claredon Press; Oxford, 1987) and an article, "The Development of Aristotle's Concept of Actuality; Comments on a Reconstruction by Stephen Menn." (Ancient Philosophy. vol.15, 1995, pg.550-564). Since the book is only 360 pages long, and the article starts on page 550 of the Ancient Philosophy journal, a simple parenthetical reference to the page number should be enough to indicate the source of any quotations from Graham in this paper. My evaluation of George Blair is based on his book, Ενεργεια and Εντελεχεια: "ACT" in Aristotle (Ottawa U.P.; Ottawa, 1992), and two articles, "Aristotle on Εντελεχεια; A Reply to Daniel Graham." (American Journal of Philology. vol.114, pg.91-97) and "Unfortunately, It is a Bit More Complex : Reflections on Ενεργεια." (Ancient Philosophy. vol.15, 1995, pg. 565-579). All citations of Blair will be from his book unless otherwise indicated. My source for John Rist's developmental account is his book, The Mind of Aristotle (University of Toronto Press; Toronto, 1989). My evaluation of Stephen Menn's interpretation is based on two articles, "The Origins of Aristotle's Concept of Ενεργεια: Ενεργεια and Δυναμις." (Ancient Philosophy. vol.14, 1994, pg.73-114), and an unpublished manuscript, "The Origins of Aristotle's Concept of Ενεργεια, II: Ενεργεια and Κινησις." (pg.1-17). My parenthetical references to Menn's articles should be clear from the page number.

Chapter 1: INTERPRETATIONS

There is a vast amount of published work on the philosophy of Aristotle in which commentators attempt to determine the meaning and development of the term ενεργεια. A brief survey of the more thorough accounts will serve as a contrast to my own interpretation, and help to locate my theory within the spectrum of acceptable alternatives. I will start with the account given by Daniel Graham in his book Aristotle's Two Systems, since his interpretation is most at odds with my own.

(1.1) GRAHAM

Graham's account of the development of ενεργεια is guided by his *Two Systems Thesis*. He argues that there are two distinct theoretical systems to be found in the writings of Aristotle: an early S1, and the later S2. Graham is committed to the claim that S2 is a correction of S1, and that the two systems are incompatible. Thus, any given philosophic concept may have a distinct sense in S1 that is incompatible with its sense in S2. Graham claims that ενεργεια is just such a concept. He argues for three separable senses of δυναμις:

1. the pre-Aristotle δυναμις *qua power*
2. δυναμις *qua capacity* for some activity used in the early treatises
3. δυναμις *qua potential* Being which does not appear in the Organon[3]

According to Graham δυναμις *qua power* implies change, and does not have a necessary ενεργεια correlate. Δυναμις *qua capacity* is distinct from *power* insofar as it does not imply change, and necessarily has an ενεργεια *qua activity* correlate. A capacity is merely a passive potency whose activation may not result in any change. Ενεργεια *qua activity* is the only meaning ascribed to ενεργεια in S1. Ενεργεια *qua actuality* is found only in S2. Graham rejects the notion that ενεργεια *qua actuality* (as the correlate of δυναμις *qua potentiality*) is

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[3] Graham has a penchant for abbreviations. He refers to δυναμις *qua* power as (DP), the δυναμις *qua* capacity as (DA), and δυναμις *qua* Being as (DS). I will try to explain his account without resorting to these abbreviations.

established in answer to the Eleatic problem of non-Being (or the problem of γενεσις). Rather, he claims that the actuality-potentiality distinction is merely an analogy constructed to support hylomorphism, and is only loosely related to ενεργεια *qua activity*. This 'hylomorphic turn' is the breaking point between S1 and S2. Once Aristotle began to explain substance in terms of form and matter a new conceptual vocabulary had to be developed to support it. As Graham puts it,

> "[Aristotle] must supplement his account of the principles of change with that of a metaphysical continuum of reality. And this is actuality in the substantial sense" (Graham, 198).

While *activity* is developed in S1 from the need to distinguish between different states of action, *actuality* is developed in S2 in order to explain change in the hylomorphic system; i.e. provide a metaphysical basis for explaining generation as a gradual process. Form is simple and irreducible, but process requires gradual change. So, how does the ειδος gradually inform the `υλη? Ενεργεια is altered in S2 in an effort to "solve the continuity problem for generation"(196).[4]

Εντελεχεια denotes the full Being of a thing; ενεργεια describes the Being of some thing to any degree between pure δυναμις and εντελεχεια. For example, an acorn is an oak κατα δυναμιν. Graham argues that "actuality is a scale of reality or Being – of the degree of presence of form in the matter"(199). So, once the acorn sprouts its first root it has achieved some degree of ενεργεια, but it is not yet an oak εντελεχειᾳ. As it grows from an acorn into an oak it comes to possess the final form to greater degrees. Ενεργεια denotes this developing scale of reality, with εντελεχεια denoting the end point of the change. Thus, the acorn is most an oak κατ`ενεργειαν when it is an εντελεχεια. *Activity* describes states of substance, whereas *actuality* describes states of matter.[5]

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[4] "The DS/ES scheme, to speak figuratively, is not an answer to Parmenides (hylomorphism is), but to Zeno"(562).

[5] "We have seen that EA applies to states of substances, to which it ascribes kinetic value. ES applies to substances, differentiating form and matter, and ascribes ontological value. The former concept presupposes discontinuous energy levels, the latter a continuum of development (Graham, 194).

Graham's interpretation appeals to the desire for formal rules that enable confident translation of the term. Graham claims that the reason it is difficult to translate the term 'ενεργεια' is because it denotes two separate and inconsistent concepts. His *Two Systems Thesis* provides clear criteria for determining which sense is being employed in which texts. In S1 the term denotes activity, in S2 it denotes actuality. Any instances that contradict this thesis are either editorial insertions or sloppy use by Aristotle himself. Thus, Graham provides a quick and tidy answer to the problems of rendering 'ενεργεια'. However, the devil is in the details. Constrained by the limits of his *Two Systems Thesis*, Graham has difficulty accounting for the many odd uses of the term 'ενεργεια'. The adverbial form of ενεργεια seems to mean *actually* in both S1 and S2 (e.g. 86a29). On the other hand, he cannot explain the continued use of ενεργεια *qua* activity in S2. By trying to fit ενεργεια into two neatly divided systems, Graham strains the text beyond the limits of explanatory adequacy.[6] His mistaken account of κινησις leads to an unsupportable interpretation of εντελεχεια, and compels him to overstate the several senses of δυναμις. Furthermore, his explanation of ενεργεια *qua* actuality implies that something can be more or less of a substance, which Aristotle explicitly rules out (e.g. Cat.3b33, Meta.1044a10).

(1.2) BLAIR

In his book Ενεργεια and Εντελεχεια: "Act" in Aristotle, George Blair argues for a unitary theory of interpretation. He agrees with Graham that ενεργεια originally served as the correlate for δυναμις *qua* power and was later extended to serve as the correlate of another sense of δυναμις, the *modal* capacity for Being. But Blair diverges from the traditional translation of ενεργεια in terms

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[6] Take, for example, his statement in regards to Aristotle's explanation of the formation of word εντελεχεια; "Notwithstanding the fact that Aristotle must have coined the word (εντελεχεια) himself, his etymology is false"(Graham,184). It is absurd to think that someone can coin a term without knowing how he did so. Further, when he finds some bit of text that does not fit his two system theory, he rejects it as a later insertion; "I wish to reject this passage as an insertion (by Aristotle no doubt) which does not belong to the original version of the D1. *I have no philological*

of activity or actuality. 'Ενεργεια' never means *actuality*, according to Blair, although when employed in accounts of Being the term may express much of what we intend 'actuality' to express. He argues instead for a single enduring sense for ενεργεια, which is adapted to the different subjects to which it applied. The term 'ενεργεια' always denotes the internal working of a thing, and can be translated adequately as 'immanent activity' in all instances.[7]

Blair's interpretation also stands against another interpretive tradition; that of developmental theory. The unitary theory implies lack of conceptual development. If 'ενεργεια' always means immanent activity then there is no room for development. Blair argues that although there is no development in the meaning of the term ενεργεια, Aristotle gains a deeper understanding of the things to which the term applies. In other words, it is the use and significance of ενεργεια that develops not the essential meaning. Contrary to the bulk of interpretations, Blair asserts that ενεργεια never means the same as εντελεχεια, but that Aristotle recognizes at some point that they refer to the same entity or condition.[8] To *be* actually is to be *doing* something. Form is what matter *does*. When an acorn achieves its end (i.e., is εντελεχεια) then it is doing what an oak characteristically does; it is being an oak. What it was potentially it is now actually. Its power to be an oak is exercised.

If Blair is correct, then a deep revision of Aristotelian ontology is in order. He construes Aristotle as undermining a 'static' conception of Being. Being is not a state, but rather Being is a doing, the exercise of characteristic function. When are a pile of bricks actually a house? When they are arranged in such a way as to

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objections to raise..."(99, emphasis mine). This is in regards to the use of ενεργεια in De.Int.(23a21-25), that seems to be a use of DS in S1.

[7] Blair asserts that all instances of the term can make sense of their context with the translation 'internal-activity', just as εντελεχεια can universally be translated 'having-its-end-within', but uses 'immanent activity' as an equivalent expression.

[8] "Aristotle discovered in the course of his investigations that even apparently static things like rocks had an internal dynamism to them; and therefore for something to be a given kind of thing, its matter (the elements it is made of) had to be doing a certain kind of act – interacting or intermingling, if you will in a certain way. Hence every εντελεχεια is in fact an ενεργεια."(Blair, 569).

shelter. For the more conservative interpreter, Blair's arguments read more as a *reductio ad absurdum*. If such a radical conclusion is to be avoided, fault must be found in his premises, in his reading of key passages. A further problem with Blair is that he preserves *unity* of expression at the expense of *clarity* of expression. His interpretation becomes rather arcane in those works which discuss form, substance and Being. It forces him to conduct a wholesale re-translation of terms related to ενεργεια. For example, ουσια is *reality* instead of *substance*, and ειδος is *aspect* rather than *form*. It is only by rendering key concepts by unusual translations that the unitary use of 'immanent activity' is even comprehensible.

(1.3) RIST

John Rist's book The Mind of Aristotle is an attempt to trace the general development of Aristotle's philosophical theories. Chapter 6 of his book gives a specific account of the development of the concept of ενεργεια. This account is set within Rist's ambitious attempt to construct a chronology of Aristotle's extant writings. This dating of text serves to divide the separate employments of the term 'ενεργεια' into conceptually distinct periods. He argues that in the earliest writings 'ενεργεια' means activity. The term is established to explain change, and it is reflection upon the activities characteristic of living things that initiates the broadening of its meaning.[9] Aristotle's attempt to describe the life activities of *thought*, *sensation* and *pleasure* indicated the need for an ενεργεια-κινησις distinction. In the next phase of development, thought concerning divine Being motivates a further extension of the term from meaning *activity* to expressing *actuality*. Thus, Rist asserts that in the mature philosophy of Aristotle, 'ενεργεια' means actuality. Rist, however, waffles a bit on this point. The basic argument of chapter 6 is that 'ενεργεια' goes from denoting the merely physical phenomenon of activity to expressing a much deeper metaphysical concept of actuality. But he wants to maintain that the term retains its nascent sense even in the mature works;

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[9] E.g. "the motivation for the development of the concept of ενεργεια came not from logic but from thinking about movements or, in the case of pleasure, of alleged movements"(Rist,115).

"so perhaps after all it is never right simply to translate ενεργεια as actuality. It always implies realized activity of some sort"(Rist,117). He does not really explain what this could mean. He could think, as Graham does, that it keeps both senses, distinct and separate. He could alternatively think, *a la* Blair, that actuality is a sort of activity. However, I suspect that he thinks that Aristotle was gradually developing a concept of actuality in the modern sense, but that he died before the full metaphysical concept could be freed from its 'active' connotations. I found this work valuable for its insight into developmental evidence, but incomplete in its conclusions. His discussion of Platonic precursors and the uses of ενεργεια in early works alerted me to many passages that must be explained in an adequate interpretive account.

(1.4) MENN

Stephen Menn provides a thorough account of the development of the meaning of the term 'ενεργεια' in his "The Origins of Aristotle's Concept of Ενεργεια: Ενεργεια and Δυναμις". His detailed study provided the model for my project. He presents a reasonable account of chronological development, without committing himself to the specific dating of books (cf. Rist). He tries to delineate distinct senses of ενεργεια, without resorting to artificial system constructions (cf. Graham). He also tries to argue for some unifying thread of meaning without relying on forced readings and clumsy locutions (cf. Blair). I regard Menn as combining the best of the former three interpretations, without suffering from any of their critical flaws.

His core claim is that ενεργεια means *activity* in the early works, and that the term retains this as its primary meaning throughout the later works. He proceeds to distinguish a later, distinct sense of ενεργεια, related only by analogy, which means *actuality*. Originally, according to Menn's developmental thesis, ενεργεια is a term constructed by Aristotle as an explanatory complement of *use* or χρησις. As such, it is conceived as the correlate of δυναμις *qua* power, and is best translated as *exercise* (80). This conceptual role of χρησις is ultimately assumed by ενεργεια, since the former connotes instrumental use, whereas the

latter connotes exercise for its own sake, or the proper use of the correlative faculty.[10] The fundamental sense of ενεργεια, as its early use and etymology suggests, is *activity*.[11]

In an effort to adequately account for the potential Being of non-existent objects, Aristotle extends ενεργεια from the correlate of potential as power to the correlate of potential to Be. Thus, in Aristotle's mature writing, ενεργεια takes on a distinct new meaning, one already covered by εντελεχεια. In reference to Being, form and substance, ενεργεια takes on this 'modal' sense and is properly translated as 'actuality', but in other instances the term retains its fundamental meaning of *activity*.

Menn's attempt to reach a clear understanding of ενεργεια, while providing an interesting survey of the Platonic discussions of activity and actuality, raises more questions than answers. In trying to establish the core meaning of ενεργεια, we are left to determine whether to translate it as 'activity' or 'actuality' depending on the context.[12] But this is precisely what we are forced to do without the elaborate developmental thesis. Menn also fails to give an adequate account of the conceptual relationship between ενεργεια and εντελεχεια. After reading Menn's elaborate thesis, we are left with the same problems we started with.

(1.5) FOUR INTERPRETIVE STRATEGIES

I chose to survey these four interpretations not only because they were among the most thorough discussions of the topic, but also because they are representative of the possible interpretive strategies. Their approaches can be summarized as follows:

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[10] Menn 81, cf. Blair 570; Cooper 1986, 73n99

[11] "What is worse is that the etymology of the word is unconnected with the meaning 'actuality', and suggests instead the meaning 'activity': and this latter is in fact the only meaning in which ενεργεια, or ενεργειν occur in any writers except Aristotle and those obviously influenced by him"(75).

[12] "Ενεργεια seems to be ambiguous in Aristotle himself between 'actuality' and 'activity'"(75).

1) Ενεργεια is equivocal across the corpus, it has distinct and separate senses (Graham).
2) Ενεργεια has a single sense (i.e. unitary translation) across all works, and subtle changes in application are an attempt to extend other concepts (e.g. Being and motion), not ενεργεια (Blair).
3) A chronological progression can be traced through the corpus, with many terms developing *in tandem* from beginning to end (Rist).
4) A conceptual development can be traced through the corpus, tracking the change in the scope and meaning of the term in response to a series of conceptual problems (Menn).

Strategies (1) and (2) work at cross-purposes, but are engaged in the same sort of inquiry. When we use the same term in different contexts, in reference to different things, does the term have the same meaning in each case? This is a mode of inquiry that Aristotle uses quite extensively. Meta.V provides many examples of this analytic approach to the meaning of terms, as does the Topics. A given term may refer to things synonymously or homonymously. Homonymous terms are those that are "so spoken of in many ways". There are three homonymous relations: equivocal, *προς ἑν* or analogous. In the Nicomachean Ethics Aristotle outlines the three types of homonymy in reference to the Good:

> "But then in what way are things called good? They do not seem to be like the things that only chance to have the same name. Are goods one then, by being derived from one good or by all contributing to one good, or are they rather one by analogy? Certainly as sight is in the body, so is reason in the soul, and so on in other cases"(NE 1096b26).

When the same name refers to two things distinct and unrelated in meaning, it is a case of simple equivocation. For example, 'key' as in a musical key is distinct and unrelated to 'key' as in a lock key.[13] A προς ἑν multivocity asserts a central or focal meaning, from which the other senses are related and derived. For example, the focal meaning of 'healthy' refers to the goodness of a living body. Certain

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[13] Some examples from Aristotle are 'sharp' in reference to knives and musical pitch (Topics 106a10) and the 'clavis' referring to a key or a collarbone (NE 1129a30).

diets, exercises and lifestyles are called healthy insofar as they promote the goodness of a living body. Analogy is weaker than the *προς ἑν* relation is, but the senses are still loosely related. As in the above example, sight is good in a living body in the same way that intelligence is good in the soul. There is no reference to some central understanding of 'good', but a similar relation is expressed in both employments of the term 'good'.[14] In Meta.IX.1, Aristotle makes it clear that δυναμις has several senses, and that these senses are homonymous in all three ways described.[15] Given Aristotle's willingness to engage in inquiries of this sort, it is likely that if such a division of senses obtained in the case of ενεργεια he would have mentioned it. Since no indication of merely equivocal homonymy occurs in the extant works, Graham's assertion of distinct senses seems unwarranted. However, in Meta.IX.6 Aristotle asserts that ενεργεια is extended by analogy. This contradicts Blair's thesis that there is a single characteristic signified by all uses of the term. So, while it is useful to examine what appear to be distinct and unrelated uses of the term, it is up to the commentator to try to find a unifying meaning. But this search for unity should not be achieved at the cost of clarity and understanding.[16] My study will be a compromise between the projects of Graham and Blair, seeking the maximal unity of meaning without doing violence to the text.

The chronological model of Rist (3) is useful as a guide, but can detract from the main purpose of the inquiry.[17] Such studies tend to produce deceptively

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[14] In the Physics, the term 'υποκειμενον' is determined by analogy; "the underlying notion can be known by analogy; for as bronze is to the statue, the wood to the bed, or the matter and the formless before receiving form to anything which has form, so is the underlying nature to substance, i.e. the 'this' (το τοδε τι) or existent (το ον)"(191a8).

[15] Aristotle asserts a focal meaning, outlines some derivative senses, and separates out the merely equivocal and analogous senses. These will be described in the second chapter of this paper.

[16] My preferred method of inquiry is to analyze the various uses of a term, separating them into what appear to be distinct groups. I then seek a unifying meaning, which explains all uses. The result will be either a unity, or the least possible senses, related in meaning as strongly as the text will support. This paper is an attempt to do just that with ενεργεια. The method can be seen more clearly in my discussion of the many senses of τελειος.

[17] Discussions of the meaning of ενεργεια in the 1950's made extensive use of text chronologies. The sort of study represented by Rist harkens back to the studies of Jaeger, Wundt, Stallmach, Gohlke, Berti, and During. For an overview of these studies see Graham 202-206.

thorough accounts in which the development of key terms follows a discernible progression. But such narratives are selective, and ground the plausibility of their conclusions in the truth of their text chronology. Rist dissects the various books and chapters of extent treatises, placing them at different points in the timeline in order to account for problematic passages or odd usage. For example, Rist divides the Topics into four separate writing periods in order to explain passages discussing the relation between ενεργεια, κινησις and `ηδονη (106-109). While this method enables one to present a smooth developmental progression (in this case, from activity to actuality), it is vulnerable to disputes over the dating of texts; disputes which are notoriously difficult to resolve.

I chose to emulate the interpretive strategy employed by Menn. Rather than hitching the validity of my argument to disputed chronology of texts, I found it to be both more defensible and more illuminating to explain how Aristotle adapts his philosophical vocabulary to address various αποριαι. I structured this study around three problematic conceptual relations; the meaning of ενεργεια develops in contrast to δυναμις, κινησις and εντελεχεια. My general developmental thesis can be encapsulated as follows: Ενεργεια was originally established as a correlate to δυναμις; it was divided into a strict and broad sense in relation to κινησις; and was extended by analogy to cases formerly denoted by εντελεχεια. I adopted a conservative text chronology to provide some continuity for the development by dividing the Aristotelian corpus into three periods: early, middle and late. In the early period I included only those texts that are uncontroversially regarded as the earliest extant texts: Protrepticus, Rhetoric and the Organon.[18] Likewise, I include in the late period only those texts generally regarded as late: Nicomachean Ethics, and Metaphysics VIII –XIV. All other texts fall generally into the middle period.

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[18] In fact, I need only claim Topics, Categories and De Interpretatione from the Organon; since those are the only texts my arguments rely upon, and there are no passages from the other that either support or contradict my assertions. Likewise, I need claim only Meta. VIII, IX and XI as late period text.

The development of the different senses (nascent, adverbial, strict, broad and extended) can be traced through these three periods. In the first period of Aristotle's theory ενεργεια is established as the correlate of δυναμις *qua* power, referring strictly to the exercise of a power or faculty. Also in this period the adverbial form ενεργειᾳ is used to differentiate the actually occurring exercise from its mere potentiality in a power. Εντελεχεια is established during the second phase as correlate of δυναμις *qua* potential Being. Ενεργειᾳ is gradually used to describe Being actually. The ενεργεια-κινησις distinction enables Aristotle to resolve some psychological αποριαι. The δυναμις-ἑξις distinction opens up the possibility of ενεργεια serving as full correlate of δυναμις. In the third period, ενεργεια is extended to cover εντελεχεια, and εντελεχεια falls into disuse.

Thus, I have adopted a hybrid strategy that draws upon the strengths of all four interpretive methods. Like Graham, I isolate what appear to be distinct senses of ενεργεια, but then explain how they are developmentally related. I tend to agree with Blair that there is a general sense of ενεργεια that remains the same across the works, but regard this unity much less strictly. In common with Rist I divide the developmental account into chronological periods (early, middle and late), but the chronology is truncated and minimal, using only books whose dating is relatively uncontroversial. Finally, in accord with Menn, I structure the account around Aristotle's attempts to resolve certain conceptual problems, focussing on the relation of ενεργεια to δυναμις, κινησις and εντελεχεια.

(1.6) FACTS TO BE INTERPRETED

It is clear from a survey of these four interpretations that there are some tenets of Aristotle's theory that are uncontroversial, areas of almost universal agreement among commentators.

(1.6.1) ενεργεια is the correlate of δυναμις

This is the most obvious starting point for any discussion of ενεργεια, since regardless of the use or reference of the term, δυναμις is always posited as its proper correlate. Even in cases in which there is a δυναμις without a

corresponding ενεργεια (as the Infinite and Void) or an ενεργεια without a δυναμις (as the thought of God), it is by reference to the general case that the uniqueness of these special cases is explainable.[19] If ενεργεια is to be understood, it must be understood in relation to δυναμις. No commentator would deny this.

(1.6.2) ενεργεια means both activity and actuality.

Three of the four surveyed commentators agree that ενεργεια means both activity and actuality. Graham, as was earlier indicated, argues that ενεργεια means activity in S1 and actuality is S2. Rist and Menn suggest that ενεργεια develops in meaning from an early sense of activity to a more philosophically sophisticated later sense of actuality. Blair has a more complicated account in this respect, but it is still in general agreement. He argues that ενεργεια always denotes 'internal activity' but that it later connotes "what we mean by actuality".[20] There are commentators that argue for a unitary translation of the term ενεργεια. Some examples are *process* (Etzwiler), *activity* (White), *internal activity* (Blair), *act* (Owens, Ellrod), and *actuality* (Polansky). Nevertheless, in all these cases it is agreed, at least, that Aristotle is using ενεργεια to denote activities in his early works and refer to 'that which is actual' in Meta.IX. In order to make their claim of unitary translation they have to argue that Aristotle is doing something unique and subtle with the term that must be kept in mind in order for some passages to be comprehensible. And there is universal agreement that the tension to be resolved or explained is that between the concepts of *activity* and *actuality*.

(1.6.3) The meanings of ενεργεια and κινησις are closely related.

Aristotle explicitly relates ενεργεια and κινησις in passages throughout the corpus. The difficulty is that he does not appear to be consistent in explaining

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[19] What I mean is that the unique ενεργεια of God is explained in comparison to the standard case of the ενεργεια-δυναμις relation; i.e. God's activity is perfect insofar as it is never merely potential. Likewise, the special Being of Void is explained be showing how it is a special sort of potentiality; one which can never be actual.

[20] Blair repeatedly denies that actuality is a reasonable translation. But he does indicate that the term connotes something slightly different when it is extended to cover the instances of εντελεχεια. Despite his adamant refusal to agree that there is a sense of ενεργεια that is properly rendered 'actuality' he takes it as a given that there are passages in which Aristotle is implying much more than mere activity.

the connection between the two terms. In some books (e.g. the Rhetoric) he claims that ενεργεια is a κινησις, and in others he claims that κινησις is an ενεργεια, or that both are types of πραζις. It is impossible to deny there is an important connection between the terms. I will explain the complex nature of that relationship in chapter 3.

(1.6.4) The meanings of ενεργεια and εντελεχεια are closely related.

The connection between ενεργεια and εντελεχεια is more confused and less explicitly stated than that between ενεργεια and κινησις. Both are spoken of as the correlate of δυναμις. Both are used to describe Being, soul, motion, God and form. Aristotle even claims in Meta.IX that ενεργεια has the "implication of εντελεχεια" and that its meaning is "connected with" or "points to" that of εντελεχεια. Both are translated as *actuality*. I will clarify the relation between these two terms in chapter 4.

(1.6.5) Aristotle coined both ενεργεια and εντελεχεια

No extant work predating Aristotle has been discovered that uses either ενεργεια or εντελεχεια. Aristotle, however, uses both frequently and the terms have limited employment in the writings of the Hellenistic period. This suggests that both neologisms originated with Aristotle. This is a significant fact, since if both synonymously signify actuality, it is difficult to explain why Aristotle needed to create two separate terms. This matter will also be addressed in the fourth chapter.

(1.7) QUESTIONS OF MOTIVATION

Granted that Aristotle originally coined the term 'ενεργεια', determining the underlying motivation for this neologism is an important interpretive task, and it is a topic much in dispute. There are five general answers to the question, 'Why or for what purpose did Aristotle coin the term ενεργεια?'

i. Account for μεταβολη or κινησις (Irwin)
ii. Problem of Universals (Charlton)
iii. Problem of γενεσις (Blair)
iv. Correlate for δυναμις (Menn)
v. Linguistic Ambiguity (Graham)

Many think that ενεργεια was established in order to account for change. Evidence for this assertion lies in the use of ενεργεια in the defense against the Megarians in Meta.IX.3, and in the definition of motion (Physics 201a19, Meta.1065b15). Charlton argues that the term was coined to answer the Platonic problem of universals, without appealing to external Forms.[21] Blair boldy asserts "this first instance of act-potency distinction was not in the context of an explanation of change, but an answer to the question, 'Why and when can we call a non-A an A?'"(570). Ενεργεια, it is argued, was originally coined to answer the problem of Becoming. Of the first three, Blair's hypothesis has the strongest evidence. In Physics 191b28 Aristotle asserts that the answer to the problem of Becoming "consists in pointing out that the same things can be spoken of in terms of potentiality and actuality."[22] Further evidence can be mustered from the Generation of Animals (734a30, 743a23) and the Metaphysics (1009a30, 1069b19).[23] But all three explanatory hypotheses commit the same error; they argue from (a) Aristotle's application of the term to a specific problem to (b) the assertion that the term was coined in order to answer said problem. Aristotle clearly states that ενεργεια can be used effectively to resolve these problems. The overt linking of ενεργεια to these problems makes it plausible that the term was established to address one of them. But these statements of application occur in texts from the middle and late periods. If there is any evidence that will indicate why Aristotle thought it necessary to create a new term, it should be sought in his earliest works. Menn traces the core problem back into the Platonic dialogues, arguing that Aristotle established ενεργεια to indicate the use or exercise of a

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[21] His main evidence is the passage in the Physics in which Aristotle asserts that the problem of universals can be resolved if one understands that "what is one may be actually one or potentially one"(186a3). Further evidence is found in his discussion of how knowledge is possible (Meta.1087a10).

[22] This passage renders Blair's hypothesis at least as strong as Charlton's, whose is based on a similar passage from the same book, as formerly mentioned.

[23] "For 'that which is' has two meanings, so that in some sense a thing cn come to be out of that which is not, while in some sense it cannot, and the same thing can be at the same time be and not be – but not in the same respect. For the same thing can be potentially at the same time two contraries, but it cannot be actually"(1009a30).

faculty (79-81). I do not generally disagree, but I differ in thinking that the motivation was primarily linguistic rather than metaphysical.

As I will argue at length in the first part of chapter 2, Aristotle establishes ενεργεια as the correlate of δυναμις in order to clarify a linguistic ambiguity. This assertion is supported by the use of the term in the early period, and by the problems which the new term is employed to resolve.[24]

(1.8) GUIDING ASSUMPTIONS

Before proceeding with my main arguments, I wish to explicitly state four general presuppositions that guided this inquiry.

Consistency: There is a theoretical consistency to Aristotle's philosophy. This consistency does not preclude development of core doctrines. But this development should be understood as an effort to establish greater clarity and accuracy, allowing for the alteration of earlier premises to maintain consistency with new theories. This guiding assumption is at odds with Graham's Two Systems Thesis, which posits a discontinuity between two incompatible systems.

Conservatism: The tradition of translation and interpretation is not totally wrong. I find it highly unlikely that two thousand years of commentary are entirely misguided. This assumption takes issue with Blair and Bechler, both of whom think they have discovered something in the text that no one before them has, and that Aristotle is forwarding a theory radically different than what has been traditionally been attributed. I regard such extreme claims with skepticism. Explanations of difficult passages, which are at least partially consistent with the tradition of scholarship, are preferred to those that subvert the authorities.

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[24] This hypothesis was originally suggested to me by Martin Tweedale, however, I found support for this position in Graham; "What makes the DA/EA distinction go is not some deep metaphysical truth, but a simple 'fact' of ordinary language. Though this fact could later suggest a metaphysical analysis, as I think ordinary language analysis often does for Aristotle"(Graham 560); "It is possible that Aristotle developed the distinction to forestall sophistic refutations which traded on an ambiguity in verbs and their nominal counterparts"(Graham 190).

Unity: There is a unity to the various uses of a term in Aristotle's philosophic vocabulary. If there is some unrelated sense or if the unity is merely analogical or *προς ἑν*, Aristotle will indicate it. This assumption contradicts the assertion by Charlton that there are unrelated senses of ενεργεια which Aristotle employs without explaining (or possibly without noticing) their distinction.

Formalism: An interpretation must try to account for the difficult passages with reference to the immediate text, rather than falling back on meta-textual critiques. I am unpersuaded by any interpretation that depends on claims of editorial tampering for its validity (as Graham). I also regard with skepticism any attempt to explain texts by referring to psychological and historical influences on the author.

Chapter 2: δυναμις

Aristotle never obliges the reader by providing a clear definition of the term ενεργεια. He asserts, rather, that ενεργεια is not the sort of concept that can clearly be defined, and so he tries, in Meta.IX.6 to elucidate the term by means of examples and analogy. I will take a similar approach. My method for discovering the meaning of ενεργεια will be to examine its relation to other key terms and I will begin with an analysis of the relation between ενεργεια and δυναμις.

(2.1) SEVERAL SENSES OF δυναμις

The main difficulty of such an analysis is that δυναμις has several senses (1046a5). The senses of δυναμις which are properly related to ενεργεια turn out to be a *προς ἑν* equivocity in which the core sense denotes "the source of change (*αρχη μεταβολης*) in some other thing, or in the same thing *qua* other" (1046a10).[25] The derivative senses are:

(i) *παθειν εστι* δυναμις ; power of being affected

(ii) ἑξις απαθειας ; state of impassivity

(iii) affecting or being affected *well.*

All of these senses of δυναμις are related in that they describe a causative principle, either in its capacity to move, its capacity to be moved, its capacity to resist motion, or its capacity to move, be moved, or resist motion *well.* From the earliest use of ενεργεια, it is a correlate of δυναμις in the sense of a causal power.

In the first chapter of Meta.IX, Aristotle illuminates the notion of δυναμις further by examining the privation (*στερησις*) contrary to a power; αδυνατον. In its several senses, 'X has an incapacity to Y' may mean:

(1) capacity-to-Y cannot be attributed to X,

(2) X simply lacks capacity-to-Y,

(3) X lacks the capacity-to-Y, which it would naturally or for the most part possess,

either (3a) in general or (3b) in particular,

either (3b') completely, or (3b") in some respect.

(4) X is coercively prevented from expressing a capacity-to-Y.

Case (1) speaks of an incapacity which is really just a category mistake, as exemplified by the colour red being *incapable* of sight; case (2) is an incapacity in its broadest contingent sense (since (1) is an impossibility) and denotes an incapacity which may be consistent with a perfect exemplar of a body, e.g. a tree is incapable of sight. It does, however, cover all the stricter senses in (3). The third sense covers what Aristotle is usually referring to in his talk of capacity. It denotes that a potential is lacking what would normally be present, and the attribution of such capacities plays an important role in Aristotelian science. This distinction between the general and particular privation of a naturally possessed capacity [(3a) vs. (3b)] seems to be between handicaps shared by a species, and handicaps attributed to an individual. Helen Keller and all moles lack the power of sight, Helen in particular privation within a species naturally having sight, moles as a species deprived within a genus (animal) naturally having sight (1022b26). Of course, moles are not really blind, but this was Aristotle's chosen example, and it is clear enough to make the point (replace the mole with some species such as the mole rat).[26]

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[25] Aristotle dismisses the 'merely homonymous' senses as not related to ενεργεια. Δυναμις is by analogy used to denote *powers* as applied to numbers, as in exponential squares and cubes (1019b34). Logical potentiality is dismissed as well, being merely the opposite of logical repugnancy. The senses in which things are called potential because they are not of necessity false are dismissed as well (1019b33).

[26] The distinction between general and natural may alternatively refer to a potential-actual distinction. "Socrates is deprived of speech" interpreted generally would be the obvious case of a mute Socrates. Interpreted as "when it would normally possess it", with stress on the *when*, would refer only to actual states, excluding, for example, the case of the *infant* Socrates, who has the potential for speech, but does not naturally have it at birth. General use covers what a being would naturally possess actually *or* potentially, the stricter sense refers only to what a being ought to actually *possess*.

The second subdivision [(3b') vs. (3b")], which is meant to qualify natural particular deprivations, but which may equally well be applied to all the senses, refers to the quality of the power; it is a distinction of degree. So, Socrates could e deprived of speech completely in virtue of being a mute (3b'), or in some lesser respect such as a debilitating stutter (3b"), or being shocked and temporarily at a loss for words (also 3b"). My wife is 'blind' without her glasses, even though she can 'see' blurry shapes and fuzzy images. She is deprived of the full degree of the power of sight. Sense (4) refers to a violent or external deprivation. In regards to the above examples of speech and sight, privation could occur coercively by a blindfold and a gag. In both examples, a properly functioning power is impeded by some external violence.

Throughout this chapter, I will be using potentiality, capacity, power and potency to translate δυναμις. I tend to use potentiality to render δυναμις *qua* mode of Being, e.g. the stack of bricks *are* a house in potentiality. Capacity and power are meant to cover δυναμις *qua* cause; e.g. the bricks have the capacity to become a house. Also, regarding first order δυναμεις, and second order ἑξις, I tend to use potentiality for the first and faculty for second.

Whereas Aristotle evidently coined ενεργεια, δυναμις occurs frequently in the Pre-Socratics and Plato. The range of the term prior to Aristotle seems to be captured in lexical definition of δυναμις in Metaphysics V (1019a15).[27] It is my assertion that ενεργεια was coined specifically as a correlative term to δυναμις (in the sense of a causal capacity). The new term was intended to clear up a linguistic ambiguity between a power and its exercise. The awareness of this ambiguity can be traced at least back to the Platonic dialogues.[28]

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[27] The analysis of the term in Meta.IX appears to be a revision of the Meta.V 'definition'.
[28] For a deeper discussion of the Platonic roots of the ενεργεια–δυναμις distinction, see the articles by Menn and Rist. Their essays alerted me to the Platonic connection in general as well as the specific dialogue passages.

(2.2) PLATONIC POSSESSION-USE DISTINCTION

In the Theaetetus, Socrates at one point attempts to differentiate the possession of knowledge from its use. He expresses this distinction in terms of a metaphor. The mind is like an aviary, and ideas are birds. When you capture a bird and place it in the aviary, it is analogous to learning, or coming to *possess* some new bit of knowledge. Stepping into the aviary and taking one of the captured birds in hand is like bringing knowledge to mind, actively employing the knowledge you already possess. Socrates determines "that the possession of knowledge is not the using of it"(199a). There are two important points in this passage besides being a precursor of the power–exercise distinction. The discussion concerns what it means 'to know'. *Knowing* is Aristotle's stock example of an ενεργεια, whether he is comparing it to a δυναμις, ἑξις or κινησις. Also, there is some indication that the distinction between possessing knowledge and using knowledge will serve to deflect fallacious arguments that play on the ambiguity of the word 'knowing'.[29] As I will show, this sort of linguistic ambiguity is the initial motivation for the coining of the term ενεργεια.

Another Platonic discussion of the possession–use distinction occurs in the Euthydemus. At 280c Socrates states

> "Now, take a craftsman who has all the equipment suitable for a job, but does not use it: is he going to be successful, just because he has in his possession everything he needs to possess?"[30]

Socrates is distinguishing possession of tools from their use. It is a small step from this distinction to a more metaphysically important distinction; i.e. the distinction between having the power-to-X, and actually X-ing. In the next paragraph, Socrates continues "Well, suppose someone acquired wealth and all the good things just mentioned, but doesn't put them to use: would mere

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[29] "Anyone may twist and turn the words 'knowing' and 'learning' in any way which he likes, but since we have determined that the possession of knowledge is not the having or using of it, we do assert that a man cannot not possess that which he possesses"(199b).

[30] A significant example, since *house-building* is another stock example in Aristotle's discussions of ενεργεια.

possession of these things make him happy?"[31] In the Rhetoric, Aristotle makes a parallel statement concerning the use of wealth in the Euthydemus, using ενεργεια to clarify the point;

> "Wealth as a whole consists in using things rather than in owning them; it is really the ενεργεια – that is, the use – of property that constitutes wealth"(Rhet.1361a25).

This passage ties Aristotle's early thought concerning ενεργεια to the Platonic discussions of possession and use. Two factors overlap to give rise to the need for a new concept: (1) the awareness of a linguistic ambiguity concerning certain verbs, and (2) the need to distinguish the possession of a power from its use. Plato discusses both of these motivating factors, and so it seems safe to assume that Aristotle took them seriously from the earliest stages of his philosophy.

(2.3) PROTREPTICUS & LINGUISTIC AMBIGUITY

These factors are made explicit in a fragment from what is commonly regarded as the earliest of Aristotle's surviving writing, the Protrepticus. [32]

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[31] This seems to be an early statement of the what will later play an important role in Aristotelian theory; the priority of ενεργεια over δυναμις. Does ευδαιμονια result from the possession of the moral virtues, or the exercise of such 'εξεις? For Aristotle, happiness, like friendship and excellence, lies most precisely in the activity, not the mere possession.

[32] Despite the caution as to the authenticity of the Protrepticus expressed by Barnes in the Complete Works (p.2385), all of the major commentators surveyed consider it essential for understanding Aristotle's early conception of ενεργεια. Stephen Menn remarks "I will accept Ingemar During's reconstruction of the Protrepticus as substantially correct, and as giving the earliest work of Aristotle to have survived to any significant extent"(78). John Rist takes the Protrepticus as "a work of vast influence in its time and via its use in Cicero's Hortensius, right down to late antiquity" and chapter II, section V is devoted to a discussion of it as an example of Aristotle's early thought (48-52). George Blair discusses fragment 14 at length, and supports the validity with a little name dropping, "Jaeger spends several pages showing [the Protrepticus] was written before Plato's death, and which Sir David Ross quotes B.Einerson and P. von der Muhl as saying was written somewhere around 353 B.C.....There really is no doubt that (fragment 14) belongs to Aristotle's earliest attempts at philosophy"(20). While Daniel Graham is the only of the four commentators who expresses any doubts concerning the Protrepticus ("it is not clear that the Protrepticus provides the earliest occurrences of the δυναμις-ενεργεια distinction, as is often claimed"(154.n.48)) he is nevertheless willing to use it to illuminate Aristotle's early conceptions; e.g. "However, another early source provides evidence.... the term ενεργεια appears in two fragments of the lost dialogue Protrepticus"(188), also similar remarks at (305). Thus, I accept the Protrepticus as an authentic example of Aristotle's early work. Fragment 14 is so-called by Ross' accounting of surviving fragments of the 'dialogue', and is listed in the Complete Works as (Iamblichus, Protrepticus 56.13-59.17 Pistelli).

Fragment 14 (B79) begins "Apparently *to live* is said in two senses, with respect to some power and with respect to some activity"(my own translation). Aristotle proceeds to use the examples of knowing and seeing, to which the ambiguity of dual senses more obviously applies.

> "We sometimes mean [by *knowing*] the *use* (χρησθαι) [of the faculty] and contemplation, sometimes the *possession* of the faculty (δυναμιν) and having knowledge".

There is a sense in which you are correct in calling a cat a *seeing animal* even when it has its eyes closed. A human being is correctly a *thinking creature* even when it is not currently engaged in speculation. These are correct ways of speaking insofar as there is something in existence in each of these creatures, which makes the statement true. They both possess a power. The power exists, so it is correct to attribute *seeing* and *thinking* to them. But there is a stronger sense in which the cat is truly seeing only when it is engaged in the act of seeing. The cat that is exercising the faculty of sight is *seeing* in a more complete sense than the cat with eyes closed.

In the fragment Aristotle argues that whatever it is that causes this ambiguity in verbs such as seeing and thinking may also apply to other verbs in a less obvious way. Specifically, Aristotle extends the ambiguity to cover *living*. A creature engaged in activity is more *living* than a dormant creature. The ambiguity results from using the same term in attribution of a faculty and its use; e.g. a cat may be correctly called a *seeing* animal both in regards to its possessing the power of sight, and, more properly, when it is exercising its power of sight. The explanation has intuitive plausibility when applied to examples that are clearly activities. "Jamie walks" is ambiguous between "Jamie is walking" and "Jamie can walk"; the former denoting an activity, the latter the capacity to engage is such activity. De Anima contains a passage that harkens back to waking-sleeping as an example of the possession-use distinction established in Protrepticus;

> "both sleeping and waking presuppose the existence of a soul, and of these waking corresponds to reflecting, sleeping to knowledge possessed (ἐχειν) but not employed (ενεργειν)"(412a26).

The dormant animal possesses the conditions of life, but is not fully living. Life κατα δυναμιν is the possession of the capacity to engage in the activities characteristic of living organisms.

But is it clear that living is an activity in the same way in which walking, seeing and thinking are activities? Can life be construed as the exercise of some faculty? There is need for an argument since the verb *to live* (as in the phrase "Jamie lives") does not overtly exhibit dual senses, or suffer the resulting ambiguity. In explaining the grounds of the linguistic ambiguity Aristotle is arguing for a metaphysical principle. It is not just a misleading quirk of language, but a reflection of underlying reality. If we are justified in distinguishing walking from the power to walk, we must also distinguish the activity of living from the mere capacity, *ευδαιμονια* from *αρετη*.[33]

The philosophic tradition from which Aristotle drew his technical vocabulary had not clearly established any terms to adequately express the distinction; i.e. there were no words to overtly distinguish in speech a faculty from its exercise. Δυναμις was an established Pre-Socratic philosophical term denoting a power or faculty. But there was no term to distinctively describe the activity or exercise of faculty. Aristotle could use the adverbs *really* or *truly*. In fact, in trying to explain the sense of ενεργεια in the Protrepticus he resorts to saying, "a waking man must be said to live in the *true* and proper sense."[34] But *αλεθως* and *οντως* are not conceptually sufficient to express the distinction Aristotle has in mind. As indicated, there is an ambiguity precisely because both senses are in some way true, based on the reality of either the power or its use.[35] Ενεργεια provides a concept that can signify an activity without being confused with its underlying power. Aristotle discusses this ambiguity in Topics V,

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[33] Virtue is a ἑξις, a capacity for appropriate action and response. Living well is the exercise of those virtues; ευδαιμονια is the ενεργεια correlated to the δυναμις of αρετη.

[34] Or as Blair translates the passage, "in one sense, the one who is awake must be said "to live" *truly* and chiefly."

[35] It is my understanding that *really* and *truly* were used by Plato and the Pre-Socratics to express many of the things covered by Aristotle's adverbial ενεργειᾳ and εντελεχειᾳ.

> "Thus since 'knowledge of this' signifies many things – for it means possession of knowledge by it, and the use of knowledge by it, and the possession of knowledge about it, and the use of knowledge about it – no property of the knowledge of this could be rendered correctly unless it were determined which of these it is whose property is being rendered"(130a20).[36]

The term ενεργεια provides just the conceptual tool needed to disambiguate the arguments Aristotle is cautioning against. Ενεργεια is not mentioned again throughout the whole of fragment 14 until the very end,

> "Again, perfect and unimpeded ενεργεια contains in itself delight; so that the ενεργεια of contemplation must be the most pleasant of all."

This is the culmination of the longer argument for the priority of the activity over the power that enables it. The activity of living is better than the dormant state that preserves the capacity to live. The expression of virtue through action is better than the mere possession of virtues untested. In fact, the power is *for the sake of* the activity. Animals have the power of sight so that they may see. Knowing κατ'ενεργειαν is the most pleasant, whereas knowing κατα δυναμιν is pleasant only insofar as it enables the pleasant activity.

(2.5) ενεργεια QUA EXERCISE

Aristotle is still working within a roughly Platonic framework in the Protrepticus, seeking original solutions to the αποριαι of the Academy. In this early phase of conceptual development, ενεργεια must be understood as an attempt to solve a specific problem of discourse. It is intended to clarify the possession-use ambiguity, and is therefore best translated as *exercise*.[37]

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[36] See Topics V, 129b33 for a parallel passage concerning sensation.

[37] This assertion is in accordance with the arguments made by Menn (80). In an earlier draft of this paper I made this claim much more tentatively, but after reading the Menn article, I am convinced that this is the correct view. In the Protrepticus there are two forms of ενεργεια which will be important for the ensuing discussion; the nominal, ενεργεια; and the adverbial, ενεργειᾳ or κατ'ενεργειαν. Since, as I will argue, the meaning of the adverbial form is extended prior to that of the nominal, they do not always have exactly the same meaning, even within the same treatise. However, in the Protrepticus, and the other earliest works (Rhetoric, Topics and Categories) they are identical in meaning activity *qua* exercise of faculty.

Throughout fragment 14 Aristotle uses terms similar in meaning to *exercise* in order to establish the meaning of ενεργεια. The closest in meaning is χρησις or use. He says, for example, that understanding is more properly the *use* of knowledge. Χρησις is used in many works to explain and describe ενεργεια. As the term 'ενεργεια' develops and extends its meaning it grows further away from close identification with χρησις, but in the beginning they are nearly synonymous.[38] The distinction between them seems to be that an ενεργεια is the natural or proper exercise of a faculty or power, whereas χρησις denotes use in general; ενεργεια is a specific sort of use. The hammering of a nail is the ενεργεια of the hammer; hammering the nail with the butt of a screwdriver is not the proper exercise of the screwdriver's capacity as a tool as such. In the Topics, there is a passage in which Aristotle is explaining ενεργεια in terms of the *use* of some faculty:

> "if capacity is a disposition, then also to be capable is to be disposed; and if the *use* of anything is an ενεργεια, then to use it is to be active, and to have used it is to have been active" (124a31).[39]

Even in later writings, such as the Physics, χρησις is still used to stress the *exercise of faculty* aspect of ενεργεια.

> "there is no becoming of the actual use and activity of these states, unless it is thought that there is a becoming of vision and touching and that the use and activity in question is similar to these"(247b5-7).

By explaining ενεργεια in terms of χρησις, Aristotle is harkening back to the Platonic discussions formerly mentioned. Since it was the *possession-use* ambiguity that motivated the establishment of ενεργεια as a new philosophic term it stands to reason that *use* (χρησις) would be employed to describe and

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[38] It seems that in the late works in which ενεργεια is used to denote actuality, χρησις is often employed in place of ενεργεια in its early sense to avoid confusion; for example "in all cases where the result is something other than the exercise of the faculty (χρησιν), the actuality (ενεργεια) resides in the thing produced; e.g. the act of building in the thing built"(1050a30). Also, Politics 1328a35, 1332a5.

[39] Earlier in the Topics, the verb form energein complements 'εξειν in the possession-use distinction, "to fail to see is used in more than one way, viz. to fail to possess the power of sight, and to fail to put the power to active use"(106b15).

inform it. The possession of knowledge is distinguished from the use of that knowledge. Possessing knowledge is a power that is exercised in thinking. The carpenter's tools are obviously distinct from the use of those tools. But the tools give the carpenter the power to perform some work (εργον). The fact that Joe has certain tools and skills makes it true to call Joe a carpenter, but he is even more completely a carpenter when performing his εργον, when he is building *energeia*. Possession of wealth gives Donald Trump a power. But wealth properly resides in the use of his property, not the acquisition or possession of the power. Donald is more truly wealthy in spending than in hoarding.

It is still a question why Aristotle did not simply use χρησις to denote the exercise of a faculty, instead of formulating a neologism. I can only speculate as to the answer. First, as I indicated earlier, χρησις signifies *using simpliciter*, whereas I suspect Aristotle intended ενεργεια to signify the exercise of an immanent capacity, i.e. the execution of a thing's proper function. Another reason χρησις may have seemed insufficient is that is connotes using *something*, rather than the exercise itself. If Aristotle is trying to solve απορια in more abstract terms, it is in his interest to distinguish the use from the instrument, thus enabling speculation regarding δυναμις and its correlate without immediate reference to the means of exercise. A final conceptual shortcoming of χρησις is that it implies an external end. It would seem odd to assert that a possession was simply used, without some implication that it was used *for the sake of* some end. Ενεργεια avoids the connotation of an external end, enabling Aristotle to describe some activities as ends in themselves.

The verb πραττειν, 'to do', is used in the Protrepticus to describe ενεργεια. Ενεργεια is the use of a power, and the use of a thing "is *doing* just that thing". Joe is a carpenter κατα δυναμιν because he can build, but he is only κατ'ενεργειαν when he is doing it, i.e. actually building. The terms *active* and *passive* (*ποιειν & πασχειν*) are also used to elucidate the meaning of ενεργεια. When both a capacity and its exercise are denoted by the same term, Aristotle says that the ενεργεια is so-called 'by being active', the δυναμις 'by being passive.'

(2.6) ενεργεια & κινησις

Ενεργεια is also described in terms of motion or κινησις. Consider the following excerpt from Protrepticus,

> "a waking man must be said to live in the true and proper sense, as for the sleeping man, because he is capable (δυνασθαι) of passing into the κινησις in virtue of which we say that a man is waking and perceiving something."

The awakened person is living κατ'ενεργειαν, and a person may be said to be living κατα δυναμιν only insofar as some power to act as a waking person can be attributed to him. Ενεργεια is the activity, the motion, the doing whatever it is the thing is question characteristically does. In his earliest conceptions, there was no substantial distinction between κινησις and ενεργεια. Ενεργειαι seemed to be motions in relation to some capacity for motion; the τεχνη to build, and the motion of building; the ability to walk and the activity of walking; the power to grow and the process of growth.

As I will discuss in the next chapter, difficulty describing and characterizing psychological activities motivated Aristotle to employ a stricter sense of ενεργεια that did not entail change. By the late developmental period the term ενεργεια is restricted in regards to motion. Aristotle still retains, however, the nascent sense of ενεργεια. In Meta.IX, he asserts;

> "first (we must gain a clear understanding) about δυναμις in the sense most proper to the word, but not the most useful for our present purpose" (1045b35).

The 'most proper sense' is alternatively translated as the *strictest sense* (e.g. by Ackrill and Warrington). Aristotle's use of μαλιστα κυριος in the above passage and at 1047a30 refers to a sort of epistemological priority. In other words, motion is the sort of activity we come to know first, and it is only after reflecting on the nature of activities as exemplified in movements that one may come to see that there are non-kinetic activities.[40] Further, by extending the δυναμις from the

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[40] My interpretation accords with similar assertions by Blair and Menn; "when he says that the 'chief sense' of ενεργεια is process, he is talking about the most obvious case" (Blair 125); "ενεργεια was a concept of activity (paradigmatically illustrated by motion)"(Menn 77).

power to *do* X to the power to *be* X, ενεργεια comes to mean *actuality*. In order to follow Aristotle's account, *μαλιστα* ought to be read as *most obviously*. Thus, δυναμις *qua* causative capacity is the *most obvious* or readily apparent sense of the term, but not the most useful for understanding δυναμις as applied to Being and predication of the categories. In like manner, the passage

> "the term 'ενεργεια', with its implication of 'εντελεχειαν' has been extended from κινησις, to which it properly (μαλιστα) belongs, to other things; for it is agreed that ενεργεια is properly (μαλιστα) κινησις" (Meta.1047a30).

ought to be understood as 'motion is the most explicit/apparent case of activity, from which the more subtle and complete sense can be educed'. This subtle sense and its correlative δυναμις are extended from causes to express modes of Being. I will have more to say about this in chapter four, but for now it enough to say that the term ενεργεια was originally coined to denote an activity as distinct from the faculty of which it is the exercise.

(2.7) EXTENSION OF THE ADVERBIAL FORM

Aristotle established the term 'ενεργεια' to denote the *exercise* of a faculty. He recognized that such exercise is almost always some sort of *motion*. Thus, the term is used to refer to *activities* in general. Speculation concerning the non-kinetic nature of some psychological activities (pleasure, thought, etc.) leads to a distinction between ενεργεια in a broad sense (*qua* activity in general), and ενεργεια in the strict sense (non-kinetic and complete). Aristotle then began to use the adverbial form to convey an ontic sense that is increasingly distinct from that of the nominal. The ενεργεια of sight is described as seeing κατ'ενεργειαν as opposed to seeing in the sense of merely possessing the capacity for sight. So an adverbial form is employed, with the result that when a seer exercises its capacity for sight it sees ενεργειᾳ, i.e. it sees *actively*. Not active as opposed to passive, rather the seeing as an activity; it is the being-at-work, or *en-ergeia*. But this very useful adverbial form comes to describe the achievement of *any* capacity, even such achievements that are not strictly activities. For not all δυναμεις are causal powers. The term comes to be applied to Being, and thence in reference to achievements across all categories including substance. For

example, in reference to quality, "Bob is an angry man" may mean that he has the power (perhaps even propensity) to be angry, or it may refer to his being angry *as an activity*. It soon becomes clear that 'activity' is not sufficient to take on this shift in meaning. What ενεργειᾳ comes to mean, in even early applications of its adverbial form, is in fact best translated *actually*. Bob is *actually* angry, he is angry right now, this quality is currently in existence and properly predicated of Bob. With regards to quantity, "the line is divided in two" can be disambiguated as either "one line is potentially two lines" or "one line is now actually two lines". But the most important development is the extension of the δυναμις-ενεργεια relation over the category of substance, i.e. the development of δυναμει *ον* and ενεργειᾳ *ον*. Aristotle began to apply the adverbial form of ενεργεια to Being prior to the intentional extension of the nominal form. Ενεργειᾳ always ranges over the aforementioned linguistic ambiguity, but it is only in his more mature philosophy that Aristotle comes to understand that the faculty-use distinction is only a part of a deeper metaphysical principle. The underlying condition which is manifest in the faculty–use ambiguity applies to verbs like 'to be' as well as 'to walk' or 'to see', and so he extends his concepts to cover such cases. Meta.IX.4 contains the explicit articulation of the extension of ενεργεια over the Being; i.e. it is where Aristotle sanctions the use of the term ενεργεια in the sense of *actuality* (the ontic sense). There are, however, much earlier examples in which the adverbial form carries the sense of actually and is properly applied to Being. As examples;

> "For everything capable of being cut or of walking is capable also of not walking or of not being cut. The reason is that whatever is capable in this way is not always actual, so that the negation too will hold of it"(DeInt,21b15).
>
> "It is therefore impossible for what once did not exist to later be eternal. For in its later state it will possess the capacity of not existing, only not of not existing at a time when it exists – since then it actually exists (ενεργειᾳ ov) – but of not existing last year or in the past. Now suppose it to be in actuality what it is capable of being. It will then be true to say now that it does not exist last year"(DeCaelo,283b8).

In these passages, translating the adverb ενεργειᾳ with some sort of 'activity' term (e.g. 'internally actively' *a la* Blair) would obscure the meaning of the arguments. What are at issue in these arguments are modes of existence, not the exercise of causal powers.

(2.8) POWER AND POTENTIALITY

Perhaps a clearer way of approaching the extension of ενεργεια as a mode of Being is *via* the several senses of δυναμις. As indicated, δυναμις is a pre-Aristotle, philosophically important concept term. Its primary meaning (as is made clear in the lexical reference in Meta.V) is adequately translated as *power*. For any action or activity you can posit some underlying power which makes the activity possible. Aristotle reasons that this holds, to some extant, of all verbs insofar as they are the linguistic expression of activity. Take any verb and it will have a sense that refers to the capacity for action rather than the action itself. Thus, "Mary knits" may refer to an activity she is currently engaged in, or the power she possesses to knit on some later occasion. To say that Mary knits may mean that Mary *can* knit. But if this ambiguity afflicts all activity verbs then it would seem that 'living', and perhaps by extension 'being', are likewise ambiguous between signifying the power of its exercise. The grammatical structure is such that the copula has the same syntax as a verb, and the form of a sentence positing an activity is similar to a sentence positing existence. For example, "Sam *walks* to school" is grammatically similar to "Sam *is* a scholar"; and "Mary *knits*" has the same basic syntax as "Mary *is*". So, it is natural to consider a power underlying 'to be' in much the same way we expect a power to support 'to walk' and 'to laugh'. This implication of natural language gives rise to a related though distinct sense of δυναμις. If δυναμις is essentially the power *to do* X, there seems a related sense in which it means the power *to be* X. It may well be that X is potentially Y only insofar as X has the power to become Y. It is true that they are strongly related senses, and one may turn out to imply the other. Nevertheless, they are distinct senses. For ease of reference I will term the first sense *power* and the second sense *potential*. To say "Mariah can sing" is to mean

that Mariah has the power to sing. To say "The acorn can be an oak" is to mean that the acorn has the potential to become an oak, the acorn *is potentially* an oak.

(2.9) POWER AND POSSIBILITY

But an account of the senses of δυναμις is more complicated than a distinction between power and potential. Immediately prior to proposing the analogy in which the nominal form of ενεργεια is extended over the categories of Being, before even making the distinction between ενεργεια proper and κινησις, Aristotle takes a detour into a discussion of *possibility*. Aristotle's use of terms related to possibility is extremely difficult to explicate, so it is merely my intention to provide a plausible account, and leave it to other more skilled logicians to ferret out the supporting (or, alas, refuting) evidence. I regard ενδεχεται as meaning *possible* in the broadest sense. Anything said to be possible, any possible state of affairs, any logical or physical possibility may be expressed by means of this term.[41] It is used in Meta.IX to articulate the possibility *of a possibility* of a more restricted sense. For example, 1047a21, "thus it is possible (ενδεχεται) that a thing may be possible (δυνατον)...". Δυνατον is a more restricted sense of possible, which covers the sufficient capacity to be X. Aristotle explains the sense of δυνατον as follows;

> "a thing is capable (δυνατον) of doing something if there is nothing impossible in its having the actuality of that of which it is said to have the actuality"(1047a25).

While ενδεχεται is a modal term (related to terms such as impossible and necessary), δυνατον is an ontic term (related rather to being and actuality). Later in this paper I will propose the notion of sufficient potential complex. It is my conjecture that δυνατον may rightly stand for the complex, while δυναμις is properly reserved for its constituent capacities. Δυναμις is the most restricted

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[41] For example, the possibility of a sea battle tomorrow, possibility of being married before age 25, or the possibility of what is true being false. I think counter-factuals are expressed by ενδεχεται also.

sense of possible, and it is plausible to suggest that possibility is neither necessary nor sufficient for potentiality. Δυναμις is more strictly and intimately related to ενεργεια than either δυνατον or ενδεχεται.

(2.10) MEGARIAN CHALLENGE

The detour commences in Meta.IX.3, as an answer to a challenge by the Megarian school, which asserts "that a thing only has potency when it functions, and that when it is not functioning it has no potency"(Meta.1046b30). Aristotle attempts three *reductio* arguments against the Megarians, the first as follows;

(i) production requires τεχνη;

(ii) τεχνη is a ἑξις, the possession of which is the potential to produce;

(iii) ἑξις is the potential to engage in productive activity;

(iv) possessing the τεχνη of building is what makes a man a builder;

(v) the Megarians, in saying that a man is only capable of building when actually building, are saying that a man only has the τεχνη while building;

(vi) attaining the τεχνη requires learning,

(vii) losing the τεχνη requires some occurrence other than merely ceasing to engage in productive activity;

(viii) it is absurd to suggest that a man loses an art immediately upon ceasing productive activity, and gains it at the moment he engages in it.

If one accepts that the capacity for productive activity is an *acquired επιστημη* then the argument follows. However, I think this is precisely the sort of assumption the Megarians are calling into question. Aristotle seems to be basing the absurdity of the conclusion on the premise that there are obviously some instances of change that are caused by some underlying power; but this is what is to be proved. The Megarians will not deny that motion *appears* obvious, but they will doubt that such change is intelligible. Nor will they allow what *seems* obvious to determine whether or not change can be accounted for by reference to a potentiality. Aristotle is arguing that without some notion of capacity separable from actuality one cannot adequately account for the acquisition and use of knowledge crafts. The Megarians counter-claim that construing δυναμις as an attribute of some substance that can subsist in times of inactivity is unintelligible.

The second argument proceeds as follows;

(i) sensibles have an active capacity to affect the human senses;

(ii) if a colour only has the potential to affect the sense while it is immediately doing so,

(iii) and the sensible is simply a power of an object to engage the senses,

(iv) then the sensible will cease to exist when not affecting,

(v) and it will reappear immediately upon there being a receptor to be affected by it.

Aristotle regards (iv) and (v) as absurd consequences. Aristotle again relies on what seems obvious to render the Megarian argument absurd. Whenever I look on something red, it causes me to see the colour red. The power to induce the sensation of redness in a sighted creature seems clearly to be an enduring property of the red thing. It seems obvious that the red thing has this power whether or not I am looking at it, in fact, whether or not anyone is looking at it. But the Megarians are trying to tease out what Aristotle can possibly mean by this phantom power. What sense does it make to say that an apple *can* appear red when no one is looking? It can only appear red when someone is seeing the redness, at which point the power is being exercised; thus it 'only has potency when it functions'. The correlative argument submits that the passive sense will only be a potential while actually engaged, so that a closed eye does not potentially have sight, which is also absurd.

The final argument leads us into the confusion of possibility and potentiality;

If potential X exists only when it is actually X, then motion is impossible.

For example, that which is sitting does not have the potential to stand, it only has the potential to sit. While sitting, if there is no potential to stand, then it *cannot* stand. Yet, clearly, the sitting man can, and does stand. If he goes from sitting to standing, he must have had some power to stand while sitting. Since the motion from sitting to standing is evident, the power to go from sitting to standing must obtain. Since it seems obvious that motion does occur, any premise that entails the impossibility of motion must be false.

Martin Tweedale attempts to rescue the Megarians from looking too absurd in their assertions by imputing to them the notion of a *time-indexed capacity*; e.g. "If not X now, then not possible to X now". The actual state of affairs is an impediment to the capacity, for even Aristotle agrees that two contraries cannot simultaneously be actually. So, if Andrew is now sitting, then he can only have the potential to stand now if it were possible for him to be standing now, but this possibility is denied by Andrew's actually sitting now. So, in what sense is there a real capacity involved? To put it another way, the Megarians may have meant that X has the power to Y at t1 only if X is *actually* Y at t1; and if it is not-Y at t2 then it did not have at t1 the power to Y-at-t2. Every potential is time-indexed, and is true only if the potency attributed to an object at or beyond a specific time actually occurs at that time. This may save them from absurdity, but helps little in making sense of the way we talk of powers. When I say, "Sam has the capacity to sing", I mean that, barring violent privation (e.g. a gag), he *can* sing. I do not mean "Sam has the power to sing at a specific time, t1, in the future". If the Megarians are using a time-indexed theory of powers, then they are simply talking past Aristotle, and are talking of powers in a way that is alien to natural language. It may be that they are arguing that the only logically consistent way to make sense of a δυναμις is to provide a time-index. Thus, they would be arguing that our way of talking about powers is mistaken, and that we should think a bit deeper about the haphazard way in which we usually attribute powers to things. However, no account of phenomena is adequate that cannot explain why we speak the way we do, and it seems that we can meaningfully discuss powers which are not sufficient for actuality. For example, it makes sense to say that a man has the power of sight even in the dark. Not that he has the power-to-see-in-the-dark, but that in the dark, he possesses the powers necessary to see under proper conditions. Further, we can seriously talk of potentials that never *actually* become in the particular. "That tree may sprout cherry blossoms" is true of a cherry tree even if not actualized at any t1 .....tn. So, reducing potential to a prediction of a future actuality, rather than expressing an inherent power actually in a thing (though not necessarily currently realized), is neither an

accurate rendering of what is meant by the attribution of a power, nor useful for explanation.[42]

If, however, we are able to reasonably talk of potentials that never occur, there may be a breakdown in the identity of the potential and the possible. For it appears that Aristotle allows some potentials to be impossible, and some possibilities that are not supported by any preceding or underlying potentiality. Of course, it is permissible for both possibilities and potentialities to not be realized;

> "it is possible for this cloak to be cut up, and yet it will not be cut up but will wear out first; but equally its not being cut up is also possible, for it would not be the case that it wore out first unless its not being cut up were possible" (19a15).

A potentiality may still be meaningfully called a potentiality if, by chance, it is never realized. An apple in the middle of the rainforest, which is never seen by any creature, may still truly be called sensible, or red. It still has the power to induce the sensation of redness, even if it never will cause such a sensation.

A more difficult case concerns potentialities that, for some reason, are impossible to become actually. For example, if some change in the sun caused all creatures to be permanently blinded; can we reasonably predicate 'visibility' of any object, since there is no correlative passive receptor? In this case, we can envision an active potential that will never be realized. This is different than the Void, which is a logical impossibility, for the visibility is only physically impeded. I submit that in one sense (the constituent capacity) the potency remains, but in another sense (the sufficient potential complex) it does not. The latter claim is made clear in Meta.IX.7. It is possible for earth to become a statue, but earth is not capable of becoming a statue. Unlike possibility, potentiality is

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[42] This is not incompatible with Aristotle's assertion that we cannot posit a potentiality if it never becomes actual (often referred to as the principle of plenitude). We can impute potentiality based on the nature of the type, without demanding its eventual actualization in the token. Thus, we rightly say that an individual cherry tree has the potential to sprout blossoms under the proper conditions, even if it turns out in the long run that it never does sprout blossoms.

non-transitive. Each potential must be a single activity away from its realization. In precise terms, which will be explained further on in the paper, each δυνάμις is a single κινησις from εντελεχεια. That is to say, X is potentially Y only if X can become (or cause) Y by means of a single activity.[43] Possibility, it seems, is not a sufficient condition for attributing potentiality.

Harry Ide tries to deny that possibility is a sufficient condition for potentiality by characterizing some capacities as 'boot-strappers' (11). Boot-strappers are capacities acquired through repeated actions, such as crafts and virtues. In order to acquire such a capacity it must be *possible* to perform the action without having the *capacity* to perform it. His example is the apprentice who builds without having the capacity to build. The apprentice must 'build' under the foreman's tutelage many times before he learns the trade. Thereafter, his building is informed by a stable knowledge of the craft. So, it seems this is a case of an activity that is possible but not a potential. This approach is not as strong as the transitivity argument. The apprentice is not strictly 'building', the capacity for the building is in the master, and the apprentice builds only indirectly, as one would say that the hammer and saw built the house. There is no building without some capacity to build being at work.

It is more difficult to sever the possible as a *necessary* condition for the potential. Aristotle does have a class of things that make this distinction plausible. Some non-existent things can be potentially, and yet are impossible insofar as they will never be actually. Some attributes can be predicated of non-existent objects, so a unicorn could be *conceivable* without being possible. Non-existent things cannot be given an active potency, although they can be granted potential existence.[44] One can predicate motion of bricks *qua* buildable, but not to the potential house. To say that X is *possible* but will not *be* is absurd, because

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[43] "just as earth is not potentially a statue, because it must undergo change before it can become bronze"(1049a16).

[44] "People do not invest non-existent things with motion, although they do invest them with certain other predicates"(1047a33).

that is what is meant by 'impossible'.[45] To say that X is *capable* but will not be is to posit strict potentiality.[46] But what could be strictly potential? The Infinite and Void are two examples. *Απειρον* exists as potential only, and may be posited as actual only in thought.[47] The Infinite is also something that "never exists actually, but is only potential"(DeInt,23a30).

(2.11) SUFFICIENT POTENTIAL COMPLEX

Aristotle explains the connection between the possible and the actual in Meta.IX.4:

i. If (if A then B) then (if possibly A then possibly B). (1047b15)

ii. If (if A is possible then B is possible) then (if A is real then B is real).(1047b27).

I think that Aristotle is merely attempting to explain the interrelation of terms that are essential to any notion of modalities. (i) is certainly true; (ii) is more puzzling. Consider,

ii-a. If (if it is possible that Sam is a bachelor, then it is possible that he is married) then (if Sam is a bachelor then Sam is married).

The antecedent is true, but the consequent is false; (ii) thus translated cannot account for dual capacities. Since Aristotle discusses passive capacities throughout Meta.IX in terms of a double capacity for contraries, this is not likely to be accurate. There is a chance of a more generous interpretation that draws on a later passage.[48]

> "Anything possible is something possible at some time and in some way, and with any other qualifications which are necessarily included in the definition"(1048a1).

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[45] Meta.1047a14

[46] Alternatively, to say that X is capable but will not be is to attribute a constituent power while denying the possibility of the conditions of its exercise obtaining.

[47] Meta.1048b10f, Phys.263a26f for the being of the infinite; "The infinite then is in no other way, but in this way, potentially and by the way of reduction (and actually too, in the sense in which we say the day and the games are). It is potentially in the way in which matter is, and not in itself, as the finite is"(Phys 206b12).

[48] Richard Bosley draws upon earlier passages to claim that (ii) is only meant to refer to cases in which A is the cause of B, in which case there is not a problem.

Each capacity is necessarily qualified by the conditions of its actualization. Capacities are necessary for activity, but not sufficient. Most capacities require their active-passive reciprocal to become realized. Under the qualified understanding of capacity, the conditions that enable the co-ordination of an agent and its respective patient are included in the formula. This passage echoes the concluding remarks to (ii);

> "For to say that B must be possible if A is possible means that if A is at that time and in that way that it was possible for it to be, then B must real at that time and in that way"(1047b30).

So, perhaps the 'possible' in (ii) could be more adequately translated 'would be actual under conditions c1....cn'. Aristotle could have intended (ii) to mean;

> (ii') If (if A would be actual under conditions c1 ..... cn, then B would be actual under these same conditions) then (if A is then B is).

This type of capacity is the inclusive sense, in which the active and passive and all conditions necessary for their conjunction are present. It seems that Aristotle is granting to the Megarians that in this complete sense, the potential and the actual are virtually indistinguishable. But one can still isolate component potencies from the complex of conditions necessary for change or activity. One can talk of knowables in a world without knowers (Cat.7b33), or a builder without tools. Aristotle is pointing out that the complete, sufficient conditions for change bear an entailment relation to actual states of affairs [e.g.'one *must* act, and the other be acted upon' (1048a7)]. The inclusive composite of an active potency, passive power and conditions necessary for their conjunction I will call *sufficient potential complex*. A sufficient potential complex entails immediate actualization, and in this sense it is separate from the actual state of affairs only in thought.[49]

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[49] If this attempt to preserve consistency is unappreciated, Bosley has devised another plausible interpretation. The entire passage is to be interpreted in reference to active and passive potentials. Let A be an active potential, let B stand for its reciprocal passive potential;

> (i") If (If A is then B is) then (if A has the power to realize B, then B is possible).

The exact converse would render a version of (ii) that would avoid falsity, but does this state too limited a case?

> (ii") If (If A has the power to realize B, then B has the potential to be realized) then (if A is actual, then B is realized).

Aristotle asserts,

> "To add the qualification 'if nothing external prevents it' is no longer necessary; because the agent has the capability in so far as it is a capability for acting; and this not in all, but in certain circumstances, in which the external hindrances will be excluded; for they are precluded by some of the positive qualifications in the definition"(1048a17).[50]

This assertion makes it clear that potency can only be attributed to an active agent, in the absolute sense, if there is an available patient, and in circumstances in which there are no impediments to their interaction. It still makes sense, however, to talk of potency in an isolated sense, a *constituent capacity*, analogous to the way one talks of the matter in respect of its substance. There is no matter apart from the substance, but one may rationally isolate the matter 'in' the substance.

Likewise, we properly talk of the *passive* constituent capacity apart from the sufficient potential complex. Objects are not potentially-*visible*-in-world-α if there are no beings with the power-to-see in world-α. An object's *power-to-be-seen* is a constituent potency. That is to say, such an object would be visible in any world in which there were beings with sight; it is a property of the object considered in isolation from its environment and contingent relations. To attribute the *power-to-be-seen-in-world-α* to the object is to posit an abbreviated potential complex. Possible world indices and time indexed powers function as truncated sufficient complexes, adding conditions to the constituent powers. I suggest that Aristotle is granting the Megarian point that some Y is *absolutely* potential for X only if it manifests the sufficient potential complex, but still finds it useful to talk of potentials in their divided sense; divided into active, passive, innate, rational, non-rational, etc.

In Meta.1048a10 he further argues that *προαιρεσις* is a necessary component of a sufficient *rational* potential complex. Notice, this entails that

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[50] cf. "whatever has the capacity to act and be acted upon … does not have the capacity in all circumstances, but in a certain state and when they (the agent and the patient) draw near" (Phys251b1).

i) If the active and passive constituents are present,

ii) and there are no impediments to their conjunction,

iii) and the desire is present,

iv) then the actuality results as immediately as in the case of the non-rational capacity. [51]

For example, if a flame is held next to an oil-soaked rag, the realization of the potential for burning is immediately realized. Likewise, if there is a Yoyo Mah, and a cello, *and* the desire to play a sonata, the realization of the potential for cello sonata will immediately result (granted there are no impediments to this realization). The rational immediacy that follows upon desire is stated

> "Therefore everything which is rationally capable, when it desires something of which it has the capability, and in the circumstances in which it has the capability, *must* do that thing"(1048a14).

This distinction gives us the tools to deal with the Megarian argument. Aristotle agrees that a constituent potency "will only do that to which the capacity applies and under the appropriate conditions"(1048a24). Obviously, logical constraints function as impediments to capacity; thus although someone can have the power to stand while he is sitting, he does not have the power to stand-now if he is sitting-now.[52] He may have a potential that is contrary to his current actuality (potentially black while actually white, like a piece of bread prior to becoming burnt toast), but cannot, at t1, have both *a power-to-X-at-t1* and actually be *not-X*.

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[51] Capacities can be either active (initiate motion) or passive (are moved). Active potencies are either rational or non-rational. Rational powers require choice to become actual and may admit of contraries, whereas the non-rational are always at work, and are only a power for one of a contrary pair. All arts are rational active potencies. Insofar as rational potencies require desire (*orexis*) to become actual, only living things can possess them. Non rational capacities immediately commence actualization upon the combination of agent and patient, e.g. the flammable and the fire; and the resultant activity is always one of set contraries, e.g. fire only admits of heating, not cooling.

[52] I am trying to distinguish between the isolated, constituent capacity and that same capacity under certain conditions necessary for its activation. The *power-to-sit now* describes a status of a constituent capacity at some specific time; whereas *the power-to-sit-now* is a time-indexed potential complex in which the certain conditions are linked to the constituent complex. At t1 you can have both the (a) *power-to-sit*, and (b) *the power-to-sit-at-t1*, but these two powers are different in kind. The Megarian arguments depend on construing all potencies as in terms of the sufficient complex (b). Aristotle is trying to establish another stricter sense of potency that can isolate the constituent power from the conditions of its activation (a).

He can, however, bear contrary potentials for the same time-index, even past time. For example, Ian is standing at t1, sitting at t2 and standing again at t3. Ian has the power to sit, and the power to stand at all times, but does not have, *at any time*, the power-to-sit-at-t1, power-to-stand-at-t2, or the power-to-sit-at-t3. I am arguing a functional difference between having the (i) power-to-sit *at* t1, and the (ii) power-to-sit-at-t1. While the constituent capacity (i) persists regardless of the actuality of the subject, the time-indexed power (ii) is truncated sufficient potential complex, and may only be potential if it is immediately actual.

I indulged in this rather long detour into a discussion of possibility for a very important reason. During my survey of the secondary literature discussing ενεργεια it became apparent that failure to distinguish the potential from the possible leads to strange interpretations of Aristotle. William Charlton, for example, argues that in an attempt to solve the problem of universals, Aristotle extends the power-exercise sense of ενεργεια to mean the fulfillment of a possibility. As Charlton's argument proceeds it is evident that the validity of the interpretation rests on Aristotle 'bungling' his own terminology, and being inconsistent and haphazard in his use of terms (18). On the contrary, it is Charlton who bungles by obscuring the distinction between modal and ontic terms, i.e. conflating possibility and potentiality. Charlton tries to argue that ενεργεια is properly understood as the fulfillment of a possibility, with possibility being the translation for δυναμις. My preceding arguments are aimed at severing the identity of δυναμις with possibility. When, in the late writings, ενεργεια extends over a certain sort of fulfillment (εντελεχεια) it is *not* to be understood as the completion of a possibility in general. Such a reading is not consistent with use of ενεργεια in the Nicomachean Ethics or Physics.

(2.12) CHAPTER SUMMARY

To conclude this first chapter, I will recapitulate the phases of conceptual development heretofore discussed. Ενεργεια was originally coined as the correlate of δυναμις, in response to an ambiguity between a faculty and its use. To distinguish a power from its exercise a new term was needed that denoted the

exercise itself. The range of ενεργεια expanded to cover all activities that were the result of some underlying capacity for that activity. This expansion moved the new term away from close identification with χρησις, and to overlap somewhat with κινησις. The development thus far constitutes what I call the first phase, and is exhibited in his earliest works (Organon, Protrepticus, Rhetoric). In the second phase three new developments occur. First, the adverbial form of the ενεργεια begins to extend its meaning, as it gets applied to the fulfillment of any δυναμις, even those that range over the categories of Being. Second, an awareness of a distinction between the power to do something and the potential to be something motivated Aristotle to coin another term to denote the fulfillment of a δυναμις *qua* potentiality: εντελεχεια. Finally, it became apparent that not all activities were kinetic. Specifically, psychological activities could be ενεργειαι without entailing any motion. The next chapter is devoted to explaining the important distinction between ενεργεια in the broad sense (which ranges over all activities), and ενεργεια in the strict sense (which refers only to non-kinetic activities).

Chapter 3: κινησις

In attempting to give an adequate account of capacities and powers Aristotle moved away from the Platonic roots of his philosophy and was motivated to coin a new term. The concept of ενεργεια provided him with a new theoretical tool with which to address other problems he had with Platonic doctrine. I am in agreement with Stephen Menn's speculation that it is the rejection of Academic physics of the soul that forced Aristotle to try to conceive how a thing can perform an activity without being in motion.[53] It was his speculation about motion and psychological faculties that initiates the next phase of the development of the term ενεργεια. The key motivating observation is that there seem to be states of the soul that can perform functions without thereby changing or initiating a change. Before the concept of ενεργεια could be extended by analogy over the actualization of form in matter, ενεργεια proper had to be distinguished from the more obvious, though imperfect, kinetic ενεργεια.

(3.1) EARLY κινησις – ενεργεια SYNONYMY

It is clear from the early texts that there was a time when Aristotle made no clear distinction between ενεργεια and κινησις. For example, in the Rhetoric he states (quite contrary to his mature doctrine) that "activity is movement"(1412a9). In the Protrepticus he uses κινησις as an explanatory term to distinguish the ενεργεια of *living* from the mere faculty of *life* (i.e. a dormant state). But early on he starts to grope towards a distinction with regard to the faculties of the soul. In the Topics we can see Aristotle in the very process of development. In Topics IV there is a discussion of problems that arise from misunderstanding the genus-species relation. He argues that there is no such

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[53] As Aristotle indicates in the beginning chapters of De Anima, he is rejecting all of the traditional theories of psychology, not just the Platonic doctrine. But his main target theory is that espoused by the Academy.

relation between ενεργεια and ἑξις, and refers to faculties and activities of the soul to make his point.

> "Again, see if he has placed what is a state inside the genus ενεργεια, or an activity inside the genus state, e.g. by calling perception a movement communicated through the body; for perception is a state, *whereas* κινησις *is an* ενεργεια. Likewise, also, if he has said that (recollection) is a state that is retentive of a belief; for (recollection) is never a state, but rather an activity"(125b15-19).

His attention here is focussed upon his first period distinction between the faculty and its use, so the identification of κινησις with ενεργεια is sufficient for his purpose. He argues that perception is a faculty of the soul, implying that it is ενεργεια in the *perceiving*. What is important is that he identifies ενεργεια with κινησις, an action term, rather than with ἑξις, a potentiality term. In the Eudemian Ethics, another early work, Aristotle is even more explicit.

> "but of the contents of the soul some are ἑξεις or δυναμεις, others ενεργειαι or κινησεις"(1218b36).[54]

Ενεργεια is the exercise of a capacity (ἑξις), in much the same relation as κινησις is the activation of a power (δυναμις). But this dual expression suggests some notion of separating out the kinetic and non-kinetic activities. At this early point of conceptual development Aristotle is unclear how ενεργεια might be distinguished from motion.

(3.2) ACTIVTIES OF THE SOUL

Aristotle has difficulty explaining psychological phenomena, such as sense perception, prior to clarifying this ενεργεια-κινησις distinction. For example, his

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[54] In many of the earlier works ενεργεια is linked with κινησις with a *και*. Ενεργεια, in these clauses, can be read as qualifying κινησις, or as the linking of two synonyms. If it qualifies κινησις, then in the early writings, ενεργεια is a kind of κινησις rather than the other way around (his mature view). But the simpler interpretation is that και links the two as synonyms, as in "There are modifications of things in motion *qua* in motion, and the differentiae of movements. Excellence and badness fall among these modifications; for they indicate differentiae of the *motion* or *activity*, according to which the things in motion act or are acted upon well or badly"(1020b20).

description of sensation in On Sleep specifically characterizes the activity of perception as a motion.

> "the subject of (the activity) is identical with that of (the capacity), and what is called sense-perception, (*qua* activity), is a movement of the soul through the body"(454a8).

Similarly, in the early Rhetoric, Aristotle describes pleasure as a κινησις.

> "pleasure is a motion, a motion by which the soul as a whole is consciously brought into its normal state of being"(1369b33).

Yet, these assertions contradict tenets essential to his mature theory of the soul. In the Nicomachean Ethics, Aristotle argues that pleasure is not a motion (VII.12, X.3-4), and in De Anima he argues, contrary to the philosophical tradition preceding him, that the soul is motionless (I.3). The soul may naturally serve as the cause or end of motion, but moves only accidentally insofar as it resides in a moving body.[55] Aristotle cannot admit any concept of soul that is not motionless for at least two reasons. First, motion requires matter and place. In order for the soul to move it would have to occupy space and could not be immaterial. Second, the individual soul could not serve as the ultimate source of motion. If the soul was moved, then no account of a motion could terminate in the soul. This may lead to an infinite regress regarding the cause of an action, and undermine moral theories that impute individual responsibility for actions.[56] As Stephen Menn suggests in his unpublished article on the ενεργεια-κινησις distinction, "the development of Aristotle's concept of ενεργεια is motivated chiefly by his attempt to give an adequate account of the activities of the soul, particularly pleasure and sensation and other cognitive activities"(Menn, 9). Besides sensing

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[55] Aristotle sums up his argument against a kinetic soul with "That the soul cannot be moved is therefore clear from what we have said, and if it cannot be moved at all, manifestly it cannot be moved by itself"(408b30).

[56] For example, Zeno stabs Meno. Zeno is guilty of the crime since the action (the stabbing) was his choice, i.e. his soul (via deliberation and choice) was the ultimate cause of the action. If, however, the deliberation is considered a motion, then there must be some prior cause. This cause, whatever it may be, will be something external to the soul, and thus the action that at first seemed to be Zeno's was actually caused by something beyond Zeno's control. So, in what sense is he responsible? Also, if the prior cause is also a motion, then it too must have a cause, and that in turn will have a kinetic cause, ad infinitum.

and thinking, accounting for pleasure is central to Aristotle's ενεργεια-κινησις distinction. It is through the discussion of pleasure in the Nicomachean Ethics that the most complete articulation of the distinction is expressed. As will be discussed later, it is in attempting to give an account of the faculties and activities of the soul, in works such as De Anima and the Physics, that Aristotle is motivated to make the distinction explicit and conceptually sound.

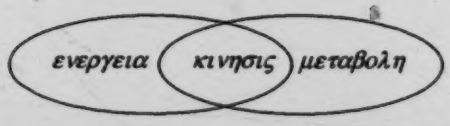
As early as Topics VI, however, speculation regarding the faculties of the soul had alerted Aristotle to the need for such a distinction.

> "Look and see also if that in relation to which he has rendered the term is a process or an activity; for nothing of that kind is an end, for the completion of the activity or process is the end rather than the process or activity itself. Or perhaps this rule is not true in all cases; for almost everybody would rather be enjoying themselves than have ceased enjoying themselves, so that they would count the *activity as the end rather than its completion*"(146b14-19).

He starts out by stating the Platonic principle, that motion is for the sake of its external end. But then, he makes a uniquely Aristotelian qualification; there are some activities that are ends in themselves, that are performed for their own sake, and not primarily for the sake of any external product. For the Academics, pleasure is a motion intimately linked to or identical with the process of replenishment of the body to its natural state. But Aristotle notices that there is a sense in which the pleasure in the soul is separable from the bodily process. In enjoyment the soul is active, but not engaged in process. Thus, although in the early stages of the development of Aristotle's theory there was no clear distinction between κινησις and ενεργεια, he gradually came to see the need for one.

(3.3) κινησις – ενεργεια DISTINCTION

In the Physics and De Anima Aristotle proposes *completeness* as the feature which distinguishes ενεργεια from κινησις. Simply stated, motion is an incomplete activity. This formulation marks ενεργεια out as the more general term, of which κινησις is a sub-class. For reasons I hope will be made clear in the course of this discussion, I assert that Aristotle uses κινησις as the linking term between change (μεταβολη) and activity (ενεργεια).



Μεταβολη denotes change *simpliciter*, not necessarily implying any activity, process or gradual alteration. Ενεργεια denotes activity, but does not necessarily involve change. Κινησις is basically any activity that results in change in the condition of a thing over time. Κινησις is ενεργεια insofar as it is an activity and a *μεταβολη* insofar as it is a change. While ενεργεια in the broad sense ranges over both kinetic and non-kinetic activity, I will refer to kinetic ενεργεια as κινησις, and non-kinetic ενεργεια as ενεργεια proper, or ενεργεια in the strict sense. When I am speaking of ενεργεια, which does not differentiate kinetic from non-kinetic, I will use the term 'ενεργεια in the broad sense'.[57] So, according to my initial account, all κινησεις are ενεργειαι *in the broad sense*, all κινησεις are *μεταβολη* and no ενεργειαι *proper* are *μεταβολη* (although they may depend upon or involve them).

The ενεργεια-κινησις distinction is raised by the απορια concerning the status of first principles raised in Metaphysics III;

> "we must ask whether first principles ... exist potentially or actually, and further whether (principles) are potential or actual in any other sense than in *reference to motion*"(996a11).

Here again is an indication that such a distinction is needed. Before ενεργεια can be applied meaningfully to God and the soul, a sense of the term needs to be explained which does not imply change and motion. In Meta.IX, Aristotle discusses ενεργεια and δυναμις as they apply to Being. But he cautions that the sense of ενεργεια he will be using must be abstracted from ενεργεια in the broad sense. He asserts,

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[57] Sarah Waterlow uses a similar terminology, referring to the 'normal sense' of ενεργεια, which includes κινησεις, and the 'narrow sense' which refers only to those activities which have "no built-in limit; its end or complete condition exists already in it, at any moment of its duration"(Waterlow,185). Waterlow expresses the narrow sense with respect to two senses of completeness, as I will later lay them out (specifically, senses 3 and 4).

> "let us explain potentiality in the most evident sense, which is however, not the most important for our present purpose; for potentiality and actuality extend beyond the sphere of terms which only *refer to motion*"(1046a1).

Motion is the *κυριος* sense of ενεργεια insofar as it is the readily apparent sort of activity, from which one may discover the subtler sort.[58] The less immediately evident activity is also the more perfect. While κινησις is the most obvious form of activity, it is not the complete form. Κινησις bears the epistemically prior sense of ενεργεια; we come to discover activity through motion, although it is not the ontologically basic type. Once we understand motion as the activation of some power or faculty, we are able to deduce more perfect activities that either exercise faculties without change (human thought), or are simply in activity without the imperfection of a possible capacity (divine thought). For these reasons, ενεργεια *qua* motion continues to be discussed in Aristotle's mature works (e.g. Meta.IX), but only as the more obvious, broader sense of an increasingly sophisticated concept.[59] Aristotle is explicitly regarding this development in the following passage; "'ενεργεια', the name, which has come about with respect to εντελεχεια, is extended, most of all from motions to other things; for ενεργεια seems most of all to be motion."(1047a30). This key passage establishes that ενεργεια *qua* actuality was extended from its original meaning as exercise of a δυναμις or a motion.

There are two other important passages that affirm a distinction between kinetic and non-kinetic ενεργειαι. In NE, Aristotle argues that God finds pleasure in thought, and that this does not imply that such activity requires that God be in motion.

> "there is not only an activity of movement but an activity of immobility, and pleasure is found more in the rest than in the movement"(1154b26).

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[58] For a defense of this reading, see Blair, 1992; e.g. "When he says that the 'chief sense' of ενεργεια is process, he is talking about the most obvious case of 'doing something'"(Blair 125), and chapter 2.6 of this paper.

[59] See Menn's unpublished manuscript, pg.8 ff, where he overstates this point, asserting that energeia retains its nascent sense "only as an natural and plausible falsehood."

The distinction is important if Aristotle is to maintain that God is immaterial. For motion requires matter, so that if God is in motion, then God is material. By distinguishing between kinetic and non-kinetic ενεργειαι, Aristotle is opening up conceptual space for the activities of God. God can act without moving. In Meta.IX Aristotle asserts the distinction;

> "Now of these processes we should call one type motions and the other activities"(1048b27).

I have argued that during the early stage of development, ενεργεια was not clearly distinguished from κινησις. Later, problems accounting for psychological activities gave rise to a need for a distinction within the concept of activity, i.e. some conceptual room needed to be established for activities that do not result in change. It is clear in the mature works (Metaphysics and N.E.) that Aristotle has made just such a distinction. The question remains; what are the criteria for distinguishing ενεργεια proper from κινησις?

(3.4) COMPLETENESS

The basic distinction is summed up in the statement "movement is a kind of activity – an imperfect kind"(417a10-17). Κινησις is an incomplete ενεργεια; in other words, ενεργεια proper is somehow complete in a way in which κινησις is not. The difficulty in understanding the distinction between ενεργεια and κινησις lies in explaining what it means for a κινησις to be an *incomplete*.

The reason for this difficulty is not that Aristotle fails to explain the incompleteness of κινησις, rather it is that he describes the incompleteness in many different ways, and does not explicitly explain how these various descriptions are related.[60] Κινησις is described as incomplete in the following ways;

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[60] Sarah Waterlow notices this ambiguity, and tries to collapse the many senses into two; "A κινησις is *ατελες*, both in the sense that so long as it continues it is incomplete (being completable) and in the sense of not being an end in itself"(Waterlow, 186). I think it is more complicated. Her distinction picks out only the third and fourth descriptions, and misses the first, second and sixth altogether.

1) **Unwhole** or lacking some of its parts; κινησις is constituted of a sequence of temporal parts, so that at any one time some parts of the whole are lacking, ενεργεια does not require a sequence of parts to form its whole, rather is whole over its entire duration.[61]
2) **Heteromerous**; Κινησις is different in form from its constituent parts, ενεργεια is identical in form with its subdivisions.[62]
3) **Insufficient** or not an end-in-itself; κινησεις are for the sake of some external end; κινησις has an external end, ενεργεια is an end in itself.[63]
4) **Unfinished** or developmental; κινησις is only complete over the entire duration of the activity, ενεργεια exists fully at each instant; κινησις is gradual, whereas ενεργεια is constant.[64]
5) **Limited** or limited *per se* by an external end; the existence of a κινησις is limited by the achievement of the end, ενεργεια is simultaneous with its achievement.[65]
6) **Imperfect** or lacking some degree of excellence, as the activation of an imperfect capacity.[66]

I do not doubt that Aristotle considered that at least descriptions 1 through 5 to be consistent and mutually informing. However, it is not immediately evident from the various discussions of the ενεργεια-κινησις distinction exactly how these descriptions are related. Some interpretive guidance can be found in the definition of *completion* in Metaphysics V, in which Aristotle distinguishes *three* senses of complete.

> "We call complete; (a) that outside which it is not possible to find even one of its parts proper to it, e.g. the complete time of each thing is that outside which it

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[61] "Seeing seems to be complete at any time, since it has no need for anything else to complete its form by coming to be at a later time. And pleasure is also like this, since it is some sort of whole..."(1174a15).
[62] "does not lack anything which coming into being later will complete its form"(1174a17).
[63] "motion is not an action, or at least not a complete one, since it is not an end"(1048b23).
[64] "every motion takes time...and is complete in the whole time that it takes"(1174a19).
[65] Meta.1048b20
[66] "motion is thought to be a certain sort of actuality, but incomplete, the reason for this view being that the potential whose actuality it is is incomplete"(201b31, cf.1066a18).

> is not possible to find any time which is a part proper to it. (b) That which in respect of excellence and goodness cannot be excelled in its kind, e.g. a doctor is complete and a flute player is complete, when they lack nothing in respect of their proper kind of excellence....An excellence is a completion; for each thing is complete and every substance is complete, when in respect of its proper kind of excellence it lacks no part of its natural magnitude. (c) The things that have obtained a good end are called complete; for things are complete in virtue of having attained their end. ... The ultimate thing for the sake of which is also an end"(1021b12-30).

The first sense (a) corresponds with the first description of κινησις as 'not whole', (b) corresponds with incomplete as 'imperfect' and (c) corresponds with incomplete *qua* 'insufficient'.[67] This subdivision is somewhat helpful in discovering why κινησις is thought to be an incomplete ενεργεια. I would argue that Aristotle thinks κινησις is an incomplete ενεργεια in all three senses. The various descriptions of the *incompleteness* of κινησις can be reduced to three senses; (a) with respect to the activity (unwhole), (b) with respect to its capacity (imperfect) and (c) with respect to its end (insufficient).

Evidently, there is a development in the way in which Aristotle describes the incompleteness characteristic of κινησις. Aristotle distinguishes κινησις from ενεργεια proper in order to account for psychological phenomena satisfactorily. He concludes that the concept of completeness is the determining feature. Thus, he asserts that κινησις is an incomplete type of ενεργεια. But wherein does the incompleteness lie? There are three possibilities: for each action there is (a) the capacity for the acting, (b) the activity itself, and (c) the aim of the action.

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[67] There is a fourth sense mentioned which is simply the application of the term by analogy to one of the first three senses, i.e. derivative completeness; "the others are so called in virtue of these first two kinds, because they either make or have something of the sort or are adapted to it or in some way or other are referred to the things that are called complete in the primary sense"(1022a1).

(3.5) INCOMPLETE CAPACITY

Aristotle initially locates the incompleteness in the capacity. In the early phases of the κινησις-ενεργεια distinction (e.g. in the De Anima and Physics), κινησις is said to be incomplete because the capacity of which it is the enactment is somehow imperfect. For example,

> motion is thought to be a certain sort of actuality, but incomplete, the reason for this view being that the potential whose actuality it is is incomplete (201b31).
>
> "movement is an activity of what is imperfect"(431a1-6).

In these passages it is clear that the degree of perfection is located in the *capacity* for ενεργεια in the broad sense. If the capacity is imperfect, then the activation of the capacity is a κινησις. What is an imperfect capacity? One is inclined to think of a faulty or underdeveloped capacity. According to such a reading, the thinking of a wise man is ενεργεια proper, but the thinking of a fool is a κινησις. This cannot be correct, for thinking, even for a fool is an ενεργεια proper, just as seeing, even for a shortsighted person is no less an ενεργεια proper.[68] The difficulty in determining what Aristotle means by an incomplete capacity in these passages has lead many commentators to dismiss the formulation as an error or imprecise use of terms. For example, L.A.Kosman remarks (regarding the passage from the Physics given above) that "this clearly cannot mean that there is some special kind of incomplete potentiality, the actuality of which is incomplete and is motion. For all potentiality is *ατελες*, incomplete or unperfected"(56). Similarly, Sarah Waterlow asserts that "'incomplete' [in the Physics passage] can hardly be understood except evaluatively"(119). I disagree with this type of interpretation. I will argue instead that Aristotle had a good reason for locating the imperfection in the capacity, but later abandoned this manner of describing the incompleteness of κινησις for equally good reasons.

We find in the Physics and De Anima the earliest attempts to *explain* the ενεργεια-κινησις distinction. In those books he is interested in accounting for the

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[68] Although there is also a sense in which such examples are called αδυνατον, see 1046a15-20.

cause of kinetic incompleteness. He locates the cause of the imperfection of the activity in the imperfection of its correlative capacity. It is not merely an evaluative imperfection; rather he is locating an ontological imperfection in the substance involved in the activity. The imperfection lies in the instability of matter. Any activity that requires matter for its medium will require time and space in which to achieve its τελος. That τελος will be the completion of some change in the matter. Capacities for ενεργεια proper do not require the transformation of matter, although underlying motions in the same substance may be necessary to support them. [69] Perhaps this point can be clarified through the common example of sight. Baby rats are born blind. They have the capacity for sight, but that capacity has not yet been achieved at the time of birth. The matter of the eyes must still develop in order for the full capacity to be achieved. This initial capacity for sight is imperfect insofar as its fulfillment requires the transformation of matter over time. The activation of this imperfect capacity does not immediately bring its end into existence. Rather, the activity is gradual, and ceases upon completion of its goal. So, the activation of this initial capacity results in motion towards a goal, not the immediate actualization of the goal. However, once the development is completed, the rat has a perfect capacity, different *in kind* from the initial capacity. It has the capacity not for sight, but for seeing. It opens its eyes, and the τελος of the higher capacity is immediately and completely achieved; the capacity for seeing is achieved simply by seeing. The capacity is not for the sake of some change in the matter, but for mere exercise of an already perfect capacity. Some motion in the matter of the eye is a necessary

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[69] An alternative explanation of the imperfection of the capacity refers to partial and sufficient causes. An imperfect capacity is only a partial cause, insofar as it requires additional powers in order to initiate the activity. Perfect causes are sufficient, in that they can initiate activity without the exercise of additional powers. For example, the capacity of the bricks to be made into a house is imperfect, insofar as it requires the τεχνη of a builder (and the advent of skilled labour) in order to initiate its goal-orientated activity. Whereas the capacity for thought is perfect since it is sufficient to initiate the activity it is for the sake of, i.e. thinking. There are, however, many paradigm cases of ενεργεια proper depend upon passive subjects (e.g. sight requires visible objects as a necessary cause).

condition of the higher activity, but it is not identical with it. The capacity for eye-gel to be informed is imperfect; the capacity for seeing is perfect.

(3.6) INCOMPLETE ACTIVITY

Although the explanation of incompleteness in terms of imperfect capacity is not incomprehensible Aristotle appears to have abandoned it in works representative of his final developmental phase (Meta.IX and N.E.X). It is not that he later decided that this approach was wrong, rather he switched from giving a causal explanation to providing grounds for determining whether a given activity was an ενεργεια proper or κινησις. With respect to the incompleteness of motion, while capacity may be prior in the order of explanation, the ends are prior in the order of knowing. Aristotle alters his description of incompleteness to fit his purpose; imperfection of capacity serves the causal account, whereas the unwholeness of the activity and the externality of its ends serve as distinguishing criteria.[70]

In the Nicomachean Ethics Aristotle tries to explain the incompleteness in terms of the activity itself. What makes a δυναμις perfect if not simply the quality of its corresponding activity? The imperfection of the capacity is *knowable* in terms of (1) the unwholeness and (2) heteromereity of the activity.

> "Seeing seems to be complete at any time, since it has no need for anything else to complete its form by coming to be at a later time. And pleasure is also like this, since it is some sort of whole, and no pleasure is to be found at any time that will have its form completed by coming to be for a longer time. Hence pleasure is not a process either. For every process, e.g. constructing a building, takes time, and aims at some end, and is complete when it produces the product

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[70] Perhaps this distinction can be explained by example of the male-female distinction. Aristotle is inclined to describe the female as an incomplete form of animal. If asked to explain the incompleteness, there are two sorts of answer: description of the cause of the incompleteness, or description of the distinguishing features. So, females can be described as incomplete due to insufficient heating of the καταμενια during gestation (or, as modern science would describe the difference in terms of X and Y chromosomes). Or, females can be described as 'departure from type' in terms of features by which she can be distinguished from males of the species; e.g. bears offspring.

> it seeks, or, in other words, is complete in the whole time that it takes. Moreover, each process is incomplete during the processes that are its parts, i.e. during the time it goes on; and it consists of processes that are different in form from the whole process and from each other."(NE,1174a15-21).

A κινησις is incomplete insofar as it is not whole at any time during its existence. Furthermore, κινησεις can be divided into parts that are different in form from the whole (as will be discussed in relation to the *tense test*). This captures the first sense indicated in the Meta.V definition. Each subdivision of an ενεργεια proper is identical in form with every other contiguous part. Seeing is just as completely an instance of seeing at t1 as it is at t2. No more seeing, (e.g. seeing at t3-t10) is needed to make the seeing at t1 complete. Κινησις does not exhibit this sort of wholeness. A κινησις requires some duration, since it is a gradual process to some external end. Its completion lies in the sum of its parts over the entire duration of the activity. An ενεργεια is complete at every instant it is engaged, but a κινησις is incomplete at every moment, and necessarily ceases upon its completion over the whole of its engagement.[71]

(3.7) INCOMPLETE END

However, in describing the imperfection of the activity itself, there is constant reference to the τελος of the activity. Why is seeing complete at each instant? Because it achieves its goal at each instant, it is fully an instance of sight at each moment, and is not made more complete by continued duration. Aristotle recognizes this definitional priority. Just as the imperfection of a capacity is knowable due to the manifest quality of its corresponding activity, the activity itself can be known to be incomplete (prior to any experience of such activity), in

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[71] I considered softening the claim that "an ενεργεια proper is complete at every instant" to "an ενεργεια proper is complete during each period, no matter how small." It seems that any activity requires some time in order to occur. Aristotle does, however, claim that perfect activities are complete in a 'now'. Is thought complete in an instant? Sight? A motion requires time in order for the change to be gradual (differentiating κινησις from the broader term μεταβολη, which may be instantaneous). But if there is no change over time, perhaps an ενεργεια proper may be considered complete even in instants that divide periods of time. In the very least, Aristotle seems to think the ενεργεια can occur in an instant.

respect of its essential end.[72] The crucial distinction, then, between the κινησις and ενεργεια is that κινησις is not an end in itself. All κινησεις are for the sake of some end apart from the motion itself. Building is for the sake of the house, not for the sake of the bricklaying. Losing weight is a motion, since the goal is to be thinner, not to diet.[73] As early as the Topics, Aristotle had this notion.

> "Look and see also if that relation to which he has rendered the term is a process (γενεσις) or an activity (ενεργεια); for nothing of that kind is an end, for the completion of the activity or process is the end rather than the process or activity itself. Or perhaps this rule is not true in all cases; for almost anybody would rather be enjoying themselves than have ceased enjoying themselves, so that they would take acting (ενεργειν) rather than having-acted (ενηργεκεναι) as their end (τελος)"(146b13).[74]

In this passage, there is the recognition of certain activities that do not achieve completion in an external τελος. So, despite trying to articulate the incompleteness of κινησις in terms of its capacity and the activity itself, Aristotle returns to explaining the distinction in terms of their respective ends. This sense of (3) incomplete *qua* insufficient is analyzed in terms of (5) incomplete *qua* limited.

> "Since no action which has limit is an end, but only the means to an end, as, e.g. the process of thinning; and since parts of the body themselves, when one is thinning them, are in motion in the sense that they are not already that which it is the object of the motion to make them, this process is not an action, or at least not a complete one, since it is not an end; it is the process which includes the end that is an action"(1048b20-24).

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[72] I say 'essential end' here to distinguish it from the proposed end. The essential end of walking is change of place, the proposed end may be exercise, fresh-air or to alleviate boredom.

[73] It may be thought that dieting is a κινησις for normal people, but an ενεργεια for anorexic people. This is misleading. Losing weight has an essential end regardless of the intentional purposes we add; the weight lost. Its terminal points determine each case of losing weight, i.e. the starting weight, the end weight, and the time over which the loss occurs. It may of course be argued that losing weight and dieting are distinct, the former denoting the motion, the latter the intention. In any case, motions are essentially limited by their ends, whether or not the motions are engaged in for their own sake. The sickness of anorexia does not consist in mistaking a mere κινησις for an ενεργεια, or else those who walk or sing or swim for the sake of the motion are ill.

[74] Last clause altered from Barnes as *per* Menn.

Κινησις is essentially a sort of change; thus it would necessarily cease when the change was completed. At any time prior to the completion of the change the activity is imperfect, and once the τελος has been achieved the κινησις naturally ceases. On the other hand, in every single time-frame in which an ενεργεια proper occurs, it is doing completely that which it is aimed at doing. It is not dependent upon some external product for its realization because it is realized in its very activity, and it is engaged fully in that activity at each instant. Both κινησεις and ενεργειαι occur over time, but a κινησις requires an adequate duration over which the change can be achieved. Thus, one can understand a κινησις as complete (a) at the instant it achieves its τελος (at which moment it ceases) or (b) over a completed series of moments through which the change occurred. But during any given period some unique part of the change is occurring, and each part or sub-period is dependent on the complex of all others in order for the common τελος to be realized.

Granted these considerations, it may be possible to summarize Aristotle's several descriptions of incompleteness, and explain how these descriptions are related. Aristotle describes the incompleteness of motion in terms of the *imperfection of the capacity* in those works in which he is trying to establish a causal account of motion and change. Describing the incompleteness in terms of the *quality of the activity* is useful for the purpose of distinguishing κινησις from ενεργεια proper. Aristotle evidently decided, however, that the most useful criterion for differentiating instances of motion from instances of pure activity was the relation of the activity to its τελος. Κινησεις are incomplete insofar as they are not ends in themselves. As such, some external end essentially limits them. They are not essentially whole insofar as each sub-motion is different in form from the entire movement, and can only be regarded as whole over the entire duration. They are unfinished in that they are completed gradually, becoming realized in the external end over time. In contrast, since an ενεργεια proper is an end in itself it is identical in form with its sub-divisions, its achievements are constant over time as opposed to gradual), and its duration is not limited by its nature (although it may be limited by imperfections of the agent or patient). An

ενεργεια, although not essentially limited, may be limited by the constraints of the subject. For example, thought is perfect and not essentially limited; i.e. it does not cease upon completion, rather it is complete at each instant of its engagement. In a divine mind, a perfect subject complements the perfect activity. But the human mind serves as an external limit to the intrinsically unlimited activity of thought. The human mind tires, needs leisure and sustenance.

Besides establishing the need for a ενεργεια-κινησις distinction and explaining the essential criterion of the distinction in terms of completeness, Aristotle provides a couple of tests to determine whether or not a given activity is a κινησις or ενεργεια proper. I will refer to the two tests as the *Tense test* and the *Speed test*. These test procedures reveal important nuances within the ενεργεια-κινησις distinction that will serve to augment our understanding of the meaning and development of the term 'ενεργεια.'

Before I begin, it is important to explain the relation between language and reality for Aristotle. He conceives of reality as forcing discourse; the orderly communication of thought is guided by the 'pull of truth' so to speak. There is almost always some truth in the way we talk about things. It is not sufficient to merely dismiss long-held falsehoods; a thorough account must explain what it is about the nature of things that would lead us to consider such errors plausible. Aristotle sees in a linguistic ambiguity some reflection of a truth underlying it. Such infidelities of language are not psychologized as mere accidents of discourse. They are considered seriously as revealing important αποριαι. A linguistic ambiguity is often a clue to the underlying metaphysical principle. In noticing a problem in the way we express a matter, we are inspired to take a closer look at what it is we are trying to express. So, in the case of the *tense test*, Aristotle is saying 'You see how we talk about this activity as opposed to the way we talk about that motion? There must be some ontological difference between these two types, which compels us to talk this way. There is some principle underlying our intuitions'. The *tense test* is therefore not essentially a linguistic test, rather it is an attempt to find,

in the intuitions underlying the way we describe activities, some support for a metaphysical distinction between κινησις and ενεργεια proper.

(3.8) TENSE TEST

Aristotle lays out many criteria for distinguishing kinetic from non-kinetic ενεργεια in various works at different phases in the development of his mature theory.[75] In an effort to distinguish κινησις from ενεργεια in the strict sense Aristotle employs what is referred to as the *tense test*. The mature expression of this test is employed in Meta.IX;

> "the processes of thinning, learning, walking, building – these are motions, and incomplete at that. For it is not the same thing which at the same time is walking and has walked...but two different things; and that which is causing motion is different from that which has caused motion. But the same thing at the same time is seeing and has seen, and is thinking and has thought. The latter kind of process then is what I mean by actualization, the former what I mean by motion"(1048b30-35).

Aristotle seems to have noticed some explanatory link between the way we speak of activities and their ontological status as early as the *Sophistici Elenchi*;

> "Is it possible to be doing and to have done the same thing at the same time? No. But it is surely possible to be seeing and to have seen the same thing at the same time and in the same respect"(178a9).[76]

The implication is that one can distinguish an activity that is a κινησις from an activity that is an ενεργεια proper by subjecting them to the following test:

> For any agent X and activity A, if it is false to assert that *at one and the same time* both 'X is A-ing' and 'X has A-ed', then A is not an ενεργεια in the strict, complete sense.

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[75] Κινησις takes place over time, whereas ενεργεια may be instantaneous. Κινησις is incomplete at each moment, ενεργεια is complete at every moment (motion cannot exist in an instant). Κινησις is different *in form* from its constituent parts; ενεργεια is identical in form with any sub-period. Matter is required for change, so κινησις is tied to matter in a way ενεργεια proper is not. Κινησις has an external end; ενεργεια is an end in itself.

[76] The observation that ενεργεια exhibit this trans-tense character occurs also in De Sensu, "Even if one always hears and has heard – and, in general, perceives and has perceived – at the same time, and these acts do not come into being but occur without coming into being"(446a2).

So, in the example of building, it is not true to say that at t1 both Sam is building and has built. But one might truly assert both that Sam is seeing and has seen. Thus, according to the test, seeing is a complete ενεργεια, whereas building is merely κινησις.

Ackrill, however, argues that Aristotle's test cannot properly distinguish the two senses of ενεργεια. Consider the examples of Sam building and seeing. Sam is building a table. He just finishes fashioning the legs for the table on a lathe at t1. At t1 it is true to say that he has built (he was building prior to t1). Since he still has more building ahead to complete the table, it is true also at t1 that he is building. So, according to the *tense test*, building is an ενεργεια proper, not mere κινησις. The test shows the opposite of what Aristotle intends it to show, i.e. that building is a clear case of κινησις.

This problem can be avoided by clarifying the use of the perfect tense in the test. The perfect tense refers not to past occurrence or preceding duration, but to completion. 'X has A-ed' does not mean that the A-ing is over, or that there has been some temporally prior A-ing; rather it means 'X has completely A-ed'. The Greek perfect tense aspectually implies completion (the aorist or imperfect would need to be employed for Ackrill's argument to work).[77]

This understanding of the perfect tense, one might argue, causes the reverse problem, construing paradigm cases of ενεργεια as mere κινησεις. For if the objective of an ενεργεια is not fulfilled, then it must be mere κινησις. Take for example the ενεργεια of seeing. Sam is seeing a movie. The movie starts at 1pm and is two hours long. At 2pm is it true both that Sam is seeing and has seen? Not if we understand 'has seen' as meaning 'has completely seen', for the movie is not over yet, and therefore cannot have been fully witnessed. Thus, seeing is a κινησις since it is possible for it to be active but not yet completed. Sarah Waterlow rightly counters this objection by pointing out that 'X has completely

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[77] For a more detailed argument supporting this reading of the Greek perfect tense, see Michael J. White's article, "Aristotle's Concept of Θεορια and the Ενεργεια-Κινησις Distinction" (Journal of the History of Philosophy, 1980, pg.253-263).

A-ed' is an equally ambiguous explication of the perfect aspect in verb tense (185). Ackrill tries to refute the validity of the *tense test* by applying the completion to the *object* rather than the *act* itself. A more accurate parse of 'X has A-ed' would be 'X has exercised a complete act of A-ing'. This paraphrase brings out the significance of the *tense test*. It is a linguistic device used to test whether an activity is complete at every moment, a criteria set out to distinguish κινησις from ενεργεια in the Physics (257b8), De Anima (417a17, 431a5), Metaphysics (1048b20) and the Nicomachean Ethics (1174a15).

Even with a more accurate understanding of the perfect tense there is another problem with the test. It seems that many motions that do not have ostensible external products pass the *tense test*, in particular locomotions. For example, Thales is walking along contemplating the nature of the universe. At t1 he walks over the edge of a ravine, falls through t2 and t3, and lands at t4, rumpled and a little worse for wear. At t3 one may argue that it is true that Thales is both falling and has fallen. In the simple sense we have already eliminated, he 'has fallen' insofar as he was falling at the immediately prior t2, and is still falling at t3. But it also seems true to say that he 'has fallen' in the aspectually perfect sense, i.e. he has exercise a complete act of falling (from t1 to t3). So, by the *tense test*, the locomotion of falling is a complete ενεργεια.

The answer to this objection lies in understanding that ενεργειαι are ends in themselves; the act of *A-ing* is identical in kind to the completion implied by the condition of *having A-ed*. But with κινησις the *is A-ing* and *has A-ed*, insofar as they are truly and simultaneously asserted, are characterized by *distinct* ends beyond the motion itself. As Aristotle explains,

> "Now a thing that is in motion from one place to another cannot at the moment when it is in motion both be in motion and at the same time have completed its motion at the place to which it was in motion (e.g. if a man was walking to Thebes, he cannot be walking to Thebes and at the same time have completed his walk to Thebes)"(231b28-31).

One may further object that there are instances of locomotion in which the destination is merely accidental. For example, Sam has worked too hard and decides to go for a leisurely walk. He leaves his office a 10am, and returns at

11am. He was not walking anywhere in particular, just walking for the sake of walking. So, Sam can claim that at 10:30 he was both walking, and had completed the act of walking (insofar as his walk was as complete as it would ever get). At 10:30 he was fully engaged in the activity, such that if he were to stop in one minute or continue for another hour it would not be *more completely walking.*

This is a strong objection, but Aristotle anticipates it. He tries to clarify the sense in which falling t1 to t3 is different than falling from t1 to t4, or walking from 10am to 11am is different from walking from 10am to 10:30 am.

> "It seems that (κινησις) is not complete at any and every time, but that the many movements are incomplete and different in kind, since the whence and whither give them their form. But of pleasure the form is complete at any and every time"(1174b3).

Motion cannot occur in an instant, it requires space and time. In the example of an instance of walking from point A through point B to point C, the distance from A to B is different in form from B to C, and both are different in form from the whole of A to C. The form of the locomotion, apart from any rational intentions, is determined by its terminal points; the *whence and whither.* There are as many potential 'completions' in a single motion as there are subdivisions in a line. But just as each bisection is different in form from the whole line, so the sub-motion, no matter how it is determined, is different in form from the whole motion. Applying this to our former examples it becomes clear in what way the *tense test* is preserved. Thales falls from the rim of the ravine to the ravine floor. Half of the way to the bottom (mid-fall) is it true to say that he is both falling and has fallen? Yes, and no. He is falling, if you take as the terminal points the ravine rim to the floor; he has fallen, if the terminal points are the ravine rim to a point midway down the slope (where he is at the point we are trying to determine). So, yes, both are true of Thales, but not of the *same motion.* The fall from rim to midway is *different in form* from the fall from rim to floor.

Likewise with Sam's walk. The objection here rests on confusing the essential elements of the motion with the subjective (contingent) intentions of the mover. It is the terminal points of a given motion that constitute the locomotion,

not the proposed reasons for engaging in the motion. At 10:30 Sam is both walking (from 10 to 11), and has walked (from 10 to 10:30). What if he just stops at 10:30? Well, then it is not true to say that he is walking, but only that he has walked, since the prior walk constitutes the entire whole and not a mere subdivision of a potentially greater whole.[78]

Let me try to sum up the argument for the legitimacy of the *tense test*. A κινησις is an incomplete ενεργεια. It is completed either in the whole of its activity or in the final point or product of the activity. For example, house-building is considered complete either in the activity taken in its entirety (8 weeks of labour), the terminal point of the activity (the moment the last nail was driven) or in the completion of the product (once the house-being-built is truly a completed house). The κινησις necessarily ceases upon completion (no building-of-the-house continues after the house is built). The perfect tense aspectually implies completion. Thus, once a κινησις can be truly expressed in perfect tense, it has necessarily ceased. If the κινησις is truly asserted in present tense, then it must still be going on. If it is still going on, then it cannot be complete (since completion entails cessation). Thus, perfect tense is incompatible with present tense when applied to κινησις verbs. Κινησεις of identical mode still differ in form according to difference in their terminal points. The single motion may be divided into parts of the whole, but each subdivision will be different in form from the whole.[79] So, Aristotle's answer to the objections to his *tense test* would be that we often conflate sub-motions with the whole motion, and in doing so mangle the test. As a simple example (from N.E.1174a20-30), consider building. Pericles is building a temple. He finishes the foundation. At that point is it true to

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[78] For more on Aristotle's criteria for distinguishing between motions, see Physics V.4, especially 227b23. As Terry Penner summarizes the passage: "Thus for a movement to be numerically one and the same, there must be the same method, the same thing changing, the same starting-point, the same end-point, the same path, the same starting point of time, and the same end-point of time"(Penner,413).

[79] As Blair argues, "When you are walking from one place to another, you actually acquire a new aspect or form (the new place you are in), and so walking is a κινησις leading you to a new form, whereas watching and thinking and enjoying do not lead to a new aspect, but are expressions of the one you already possess"(Blair 124).

assert that he is both building and that he has built. He is currently building the temple. He has completely built the foundation. But the foundation is clearly different in form from the temple. So, what he is building is distinct from what he has built. The *tense test* requires that both tenses be simultaneously affirmed of a single activity, not an activity and its subdivision.

There are some strong counter-examples to the *tense test*. While I think they are answerable, they bring out an unfortunate ambiguity in Aristotle's account of activity. Here are three activities that seem to defy the *Tense test*;

1. Enjoying the 9th symphony: It seems that the activity of enjoying the 9th symphony is a *developing* ενεργεια insofar as it is not complete at every moment. There is a sense in which the enjoyment is not complete until the symphony is ended.
2. Taking a leisurely walk: This appears to be a case of a κινησις that is an end in itself. The purpose of the locomotion is not change of position, rather the activity is engaged in for its own sake.
3. Seeing an eclipse: While seeing is a basic example of ενεργεια proper, the addition 'an eclipse' seems to alter its status, in the opposite way as converting 'walking' to 'walking from A to B'.

All three of these counter-examples depend upon a single ambiguity. Aristotle should have distinguished the objective form of an activity from the subjective reasons for the activity. His failure to do so continues to result in misunderstanding. In the case of enjoying the 9th symphony, the enjoyment itself is distinguishable from the intentional project of evaluating the symphony as a whole.[80] The enjoyment is, as such, an end in itself. But human intention may add external limits to the activity. You are no more *enjoying* at one point in the

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[80] It might be argued that while this might work with regards to a symphony, it does not with regard to a tragedy, by Aristotle's own definition. There is a sense in which the purpose of a tragedy is not achieved until catharsis is achieved. The pleasure of tragic drama depends on the expurgation of fear and pity, and the enjoyment is not achieved until the series upon which the catharsis depends is complete. But one must distinguish between the ενεργεια (pleasure) and the kinetic conditions that give rise to pleasure (emotion, catharsis). Aristotle is not arguing that you will be pleased through the entire tragedy, rather that once you are enjoying (post-cathartic pleasure), that enjoyment is complete at each instant, and will not be perfected by an additional moment of pleasure.

symphony than you are at the end, but you may not have achieved the additional subjective goal of *enjoying the entire symphony* until the symphony is ended. The additional limits do not express the essential form of the activity; rather they describe subjective conditions qualifying the activity. This distinction can be drawn out by the next example. Walking is a standard example of a κινησις. If the activity is engaged in for its own sake is it then an ενεργεια proper? No, but it may be, in a sense, an end in itself. *A κινησις is, as such, a means to an external end, but may be an end in itself with respect to human intent (or external purposes in general)*. The essential end of the walk is a categorical change, the motion from one place to another. The terminal points of the locomotion, the limits, express the essential form of the activity in a way they do not for the enjoyment of a symphony. But the locomotion may also incidentally have a proposed end. The essential end of the walk is change of place, but the proposed end is the activity of walking itself. So, with respect to human intention, this instance of walking is an end in itself. *An ενεργεια proper is, as such, an end in itself, but may be a means to some other end with respect to human intent*. Seeing is an ενεργεια proper. But seeing an eclipse does not seem to be concluded until the entire phenomenon is witnessed. To avoid this problem, one must distinguish the intrinsic end of the activity itself from the proposed ends. Seeing as such is complete at each instant. Employed as a means to witness an eclipse, it is only a complete activity when the goal of the intentional activity achieved. These two endeavors are, however, conceptually separable. In this respect it is possible to be both an end in itself and for the sake of something else. For example, skydiving is a motion intrinsically for the sake of travelling from the plane to the ground, and incidentally (by human intention) for the sake of a pleasurable thrill.[81]

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[81] One may quibble that an ενεργεια proper does not *have* an intrinsic end, rather it *is* intrinsically an end. Nothing in my argument turns on whether we characterize an ενεργεια proper as *being* or *having* an end in itself. As far I as am concerned they are simply two descriptions of the same condition. I perhaps should most properly refer to ενεργεια only as an end in itself, but I resort to describing it as having an intrinsic end in order to bring out its contrast with κινησις. Either way, the mere description carries little weight in my account.

The distinction between active and passive powers adds some confusion. A given occurrence may be a κινησις from the perspective of the passive power, but an ενεργεια with respect to the active agent. House-building is a good example of this confusion. It is a stock example of a κινησις, yet with respect to the master builder's art, it may be said to be an ενεργεια, for "it is absurd to think of a builder as being altered when he is using his skill building a house"(417b8). From the perspective of the master carpenter, building is an exercise of his τεχνη, and no alteration need occur in him to engage in the activity (1325b31). The exercise of his skill has no essential limit, and it can range over multiple buildings. This confusion, however, can be addressed by noticing the identity of each activity. If the activity is limited in itself, i.e. if it ceases upon fulfillment, then it is a κινησις. The causal agent need not be exhausted, but its power to act is limited to the fulfillment of the product. Once *this* house is built, then *this* activity ceases. The active agent may still be causally potent *simpliciter* insofar as he can continue building houses, but he can no longer build *this* house.

There is another sort of counter-example; perfect motions. The motions of the heavenly bodies are certainly κινησεις, but they are also perfect. If a complete motion is an ενεργεια proper, then it seems that heavenly motion is not merely motion at all. Heavenly motion has no terminal points, and is thus not intrinsically limited. Such motion is perfect insofar as it is unlimited. But it fails to meet the other senses of completion. It is not whole, since every sub-division will have terminal points, and therefore be different in form from the whole. As infinite, in fact, it cannot ever really constitute a whole. One may argue that since it does not require prior time for completion or subsequent time for completion, it may be complete at an instant. This argument, however, is mistaken in that it considers completion as a temporal rather than perfective; there is no motion in an instant. Heavenly motion is thus perfect *in some respects*, much as a leisurely walk is complete *with respect to* human intentions. Its perfection lies in its lack of defining limit, so that it need never cease. But it is not intrinsically an end in itself, nor is it complete at each instant. Thus, heavenly motion is κινησις, not ενεργεια proper.

(3.9) SPEED TEST

Aristotle employs another linguistic test to distinguish cases of ενεργεια proper from κινησεις; the *speed test*. Simply stated any verb that expresses a κινησις could support an adverb expressing velocity. In other words, any given κινησις can be properly described as proceeding *quickly* or *slowly*, but ενεργειαι proper cannot be described by adverbs indicating velocity. This test follows from the principles underlying the *tense test*. If the 'whence and whither' are constitutive of the form of motions, then velocity (distance over time) necessarily applies to motions. In the Physics 234a24-31 Aristotle proves that there is no motion in a 'now' by drawing out the implications of velocity. The fact that all motions have some velocity is used as a basic premises for the argument; it is a given, not a conclusion. In the N.Ethics, Aristotle sets out the *speed test*;

> "Again, they assume that the good is complete while movements and comings into being are incomplete and try to exhibit pleasure as being a movement and a coming into being. But they do not seem to be right, nor does it seem to be a κινησις. For speed and slowness are thought to be proper to every κινησις, if not in itself (as in that of the heavens) then in relation to something else; but of pleasure neither of these things is true. For while we may *become* pleased quickly as we may become angry quickly, we cannot *be* pleased quickly, not even in relation to someone else, while we can walk or grow or the like quickly"(1173a29-b2).

Ενεργειαι do not admit of velocity since there is no external goal whose achievement is completed over a certain distance or duration. Κινησεις are determined by their spatial and temporal terminal points; ενεργειαι are not. You can walk quickly or slowly depending on the time it takes to get from point A to point B. You can learn quickly or slowly depending on how long it takes you to achieve a certain τεχνη or επιστημη. But you cannot see quickly.

A possible counter-example is thought, which appears both to admit of velocity and to be a paradigm of ενεργεια proper. Θεωρια, however, is not a motion. Nor, according to Aristotle, is one able to 'think' quickly. Θεωρια is to be distinguished from calculation, which can be accomplished quickly, and is, in fact a motion. θεωρια is more of a *looking upon the truth*, which may occur in an

instant of recognition and insight, or may remain constant through a period of focussed thought. Whereas modern psychology accepts *insight* as a discernable phenomenon, it tends to take calculation or discursive reasoning as paradigmatic of thought. This way of describing thought leads modern readers to consider *thought* a counter, but for Aristotle, θεωρια properly understood does not fail the *speed test*. Aristotle may be wrong with his account of thought, but for the present purposes it matters what he determined thought to be, and why, then, it is an ενεργεια proper rather than a κινησις. Similarly, it is not important whether or not Aristotle proves decisively that *pleasure* is ενεργεια, what matters is why he thinks pleasure is an ενεργεια proper.

It may be argued that if pleasure admits of degrees, then an increase or decrease in pleasure would be a motion. There are three strategies for dealing with this problem. The first is simply to caution that it really does not matter for the purposes of this paper whether or not Aristotle is correct in describing pleasure as an ενεργεια proper. Rather, what is important for the present purpose is why Aristotle thinks pleasure is an ενεργεια proper, and what that may tell us about the concept of ενεργὲια. We may decide that Aristotle ought to have relegated pleasure to a κινησις, but he gives reasons, based on what he regards the nature of pleasure to be, why he does not. Another strategy is to suggest that *becoming* pleased is a motion. Aristotle says as much. Going from pain to pleasure is a motion, but the pleasure itself is still an ενεργεια proper. Some motions serve as the underlying conditions for the possibility of pleasure. For example, the pleasure of satisfying hunger depends on the motion of eating and swallowing, the motion of returning the body to its natural state. This motion is not identical with pleasure, but it is a condition for pleasure. For this reason, I do not think the motions referred to can be construed as the change in degree or intensity. Finally, one may take the Terry Penner view that Aristotle has a dual-aspect theory of activity, and that all ενεργεια are supported by κινησις. A κινησις and an ενεργεια may be two aspects of an identical activity. So, under this reading, Aristotle would simply agree that change in intensity is the kinetic aspect of an otherwise complete ενεργεια. I am not fully satisfied with any of these strategies.

Regardless, this is really a problem for his theory of pleasure, not the concept of ενεργεια.

The ενεργεια-κινησις distinction seems to cut along the same line as a division between psychological and non-psychological activities. As has already been asserted, the need for the distinction was occasioned by the need to account for psychological activities. All of the examples of ενεργεια proper he discusses are psychological, such as thought, sensation and pleasure (keeping in mind the extended sense in which I use the term psychological to cover the activities of the Divine which, it may be argued, has no soul). Perhaps a better term would be cognitive activities, but then this must also be extended to cover things not usually included (e.g. pleasure). While this is an interesting phenomenon, Aristotle in no way sanctions the identification of the two distinctions. It may be that he simply used psychological examples since they were the most obvious cases. But one is hard pressed to think of a non-psychological example of ενεργεια proper on Aristotle's terms.[82]

(3.10) DEFINTION OF MOTION

There is one other important instance in which κινησις and ενεργεια are brought into contrast. Ενεργεια is used in the definition of motion. By determining the way in which ενεργεια serves to define motion, a deeper understanding of the ενεργεια-κινησις distinction might be achieved. The definition is asserted in Metaphysics XI;

> *"the ενεργεια of what is potentially, as such, is κινησις" (1065b15).*

This definition is nearly identical with two formulations that occur in Physics III, but they employ the term εντελεχεια;

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[82] The proposed identification brings out another problem; is the feeling of an emotion an ενεργεια proper? If anger is a capacity, then the activation of it must be an ενεργεια. Perhaps emotions are κινησεις insofar as they are not ends in themselves. Emotions are for the sake of action, and response, not for their own sake.

> "it is the fulfillment (εντελεχεια) of what is potential as potential that is motion" (201b5).[83]
>
> "It is the fulfillment of what is potential when it is already fulfilled and operates, not as itself but as movable, that is motion"(201a28).[84]

It seems to me that 'actuality' captures the ambiguous concept Aristotle is trying to work out across the two works. It is a term that is somewhat correct in translating both εντελεχεια and ενεργεια, as used in this context. But for the purpose of comparing the two, and in order to bring out the reasons Aristotle may have had for the alteration of the definition of motion, I prefer to translate the Physics passage with εντελεχεια as 'fulfillment' (as Hardie has done in the Complete Works), while stressing the change by translating ενεργεια in the Metaphysics passage as *activity*. Such an alteration marks a change in emphasis from the τελος of a motion, to the activity of the motion. Motion is characterized more by its activity than its end. There are other problems with the notion of εντελεχεια *qua* fulfillment that will be addressed in the following chapter.

The first problem in determining the meaning of the definition is the ambiguity between process and product. It is *prima facie* ambiguous whether motion is the fulfillment of the potential, or the activation of the potential. Is the ενεργεια of a potential *qua* potential to be located in the process toward its τελος, or is it the τελος itself, i.e. the resultant product? The commentary by Ross

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[83] I have provided some alternative translations in order to display the range of possible readings of this passage;

> "the objective of the capable, as capable, is motion" (Bosley).
> "motion must be the realization of the specific potentiality in question and of the subject only *qua* seat of this specific potentiality"(Wicksteed).
> "process is the potential's having its end within it as potential" (Blair).

I prefer Hardie's, with which Bosley's is consistent though it uses a more specific terminology, whereas Wicksteed tries to smuggle his interpretation into the translation, and Blair renders the passage even more difficult to decipher than the Greek.

[84] Again, I provide alternative translations. This last passage is even more difficult to understand, and I am not certain any of the translations capture Aristotle's intended meaning.

> "the εντελεχεια of what is potentially, when, being in εντελεχεια, it is not in energy as itself but as capable of motion, (this) is motion" (Bosley).
> "but motion is the functioning of a movable thing, all the time that it is bringing its potentiality into act, not *qua* itself, but *qua* movable" (Wicksteed).
> "But when a being having the end of a potential being within is as active as changeable, but not as itself, process exists" (Blair).

indicates this ambiguity, but his attempt to alleviate the problem leads to an interpretive dilemma. Motion, it is commonly interpreted, is the actualization of the potential. Motion is the actualization of a potentiality in terms of its potential for its correlative actuality. For example, house-building is the actualization of the capability of the bricks in terms of their potential to be a house. The *qua potentiality* focuses on the end for which the motion is occurring, picking a correlative end from among the many potentialities in the object. But as Ross cautions, this way of expressing the definition leads to the misleading identification of the motion with the result of the motion. In order to avoid this implication, a certain emphasis must be added. If there is something that is actually X and potentially Y, motion is the *making-actual* of its (X's) Y-ness. It is the transition from potentiality to actuality that is motion, i.e. it is the making-actual, not the actuality, that is motion. So, to alter the emphasis of our original example, house-building is the activation of the bricks potential *to be made into* a house. The *qua potentiality* is meant to focus on the process rather than the product. This is distinguished from the actuality of the potential *qua* actuality, which can be properly identified with the resultant product of the motion.

But this explanation of the definition of motion seems to be circular at its worst and uninformative at best. Motion turns out to be, on this interpretation, the actuality of a potential to be in motion. Motion is the exercise of a capacity to be in motion. So, Aristotle is either: (a) defining motion in terms of a potential to move, which is circular, (b) describing motion as some sort of exercise of faculty, in which case it is uninformative, since we are trying to determine what sort of exercise it in fact is, or (c) the definition is not to be read in this way. The plausibility of (a) depends on attributing an elementary logical error to Aristotle. While (b) is more likely, it is not preferable to an interpretation that could render the definition both meaningful and consistent. I opt for (c), and offer an alternative interpretation that will better cohere with my general developmental thesis. The alternative has the added advantage of supporting my earlier arguments regarding the relation between δυναμις and ενεργεια.

Terry Penner, in his article "Verbs and the Identity of Actions", argues that movement is the transition between potentially possessing a predicate of any category and actually possessing it; alteration for quality, growth for quantity, locomotion for place, coming-to-be for substance. House-building is the transition in the bricks from 'being a stack and potentially a house' to 'being a house'. The *qua potentiality* focuses on the transition from potential house to actual house rather than the transition from actual stack to actual house. The activity of 'being a stack' is different from the activity of 'being a house'.[85] This reading is supposed to more clearly distinguish the ενεργεια of a process from the related ενεργεια of its product, i.e. differentiating the activity from the actuality. However, this interpretation does not seem significantly different from Ross'. It is less prone to the process-product ambiguity in the manner expressed, but still seems either circular or vacuous.[86] Motion is the *change* from being potentially X to being actually X. It is not the actuality of X, but the becoming actual of X. Motion is the actuality of that *becoming* actual. But the circularity consists in motion being the actuality of a ...motion!

There is a strategy for giving this interpretation some content. Perhaps we can think of movement as the activation of a thing's potential; i.e. not the actualization of the *thing*, but of the *thing's potential*. For example, being built is the actualization of the brick's potential to be a house. Being heated is the actualization of the water's potential to be hot. The *qua potentiality* emphasizes that it is the potential, not the thing, which is actualized, since the bricks and the water are already actual. While I think that this is trivially true, a deeper examination of its implications will lead to a more satisfying interpretation of the definition of motion.

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[85] See also Waterlow, 116.

[86] Martin Tweedale interprets the significance of the 'as such' as de-emphasizing the specific end (which seems consistent with the Wicksteed translation). The potential as such is not the potential of the bronze to be moulded into this statue, but the potential of the bronze to be moulded *simpliciter*. Then motion is defined as the fulfillment of a movable's potential to be moved. But this still seems rather circular and confused.

What would it mean to actualize a thing's potential, rather than to actualize some thing? At this point I draw upon the work of L.A.Kosman. Movement, he argues, is the *full manifestation of a capacity*. To continue with our original example, *being-built* is the fulfillment of the brick's capacity to be potentially a house. The unused stack is not potentially a house, but is *potentially* potentially a house. It is only once the bricks are in the hands of a builder that they *really* have the potential to be a house.[87] The *qua* δυναμις marks out the potential as such as opposed to the potential for some actuality. Motion activates the potential, in a sense fulfilling it without completing it. Motion is a realization of a potential not in terms of its end but its means. So, bronze is in this sense only potentially sculptable into Hermes. It is fully a potential Hermes while it is undergoing the motion into Hermes. As Kosman argues,

> "it is only when bricks and stones are being built, Aristotle is claiming, that they are fully manifesting their potentiality to be a house *qua* potentiality; only then that the constitutive actuality of their potentiality to be a house is realized, prior to the coming to be of the deprivative actuality of that potentiality, which occurs when the bricks and stones *qua* buildable disappear, to be replaced by the brick and stone house which has been built".[88]

Motion is identified with the exercise of the power, not that for the sake of which the power exists. The exercise of the art of sculpting is motion, not the resulting sculpture. The motion is the walk, not the arrival.

There is a problem with this interpretation. Although it is not circular it seems to ignore the ενεργεια-κινησις distinction. The definition applies adequately to ενεργεια in the broad sense, but in the case of ενεργεια proper the *exercise* is identical with the *τελος*. We can save this interpretation by adding that it is only a motion in those cases where the exercise is distinct from the result. To restate the point in more Aristotelian terms, motion is the fulfillment of what is potential *qua* potential in cases where such fulfillment

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[87] As Richard Bosley describes it, the passive power is potential with regards to its objective *only* when in contact with the active power.
[88] Kosman, L.A. "Aristotle's Definition of Motion. Phronesis. 1969, pg.50.

is distinct from the fulfillment of the capacity's essential end. For example, growing is the fulfillment of the power to grow as such, and is a motion as opposed to an ενεργεια proper since growing is distinct from being grown. The *fulfillment* of an acorn's capacity to grow into an oak is ambiguous. The fulfillment of its capacity *qua* δυναμις is a motion, which is the sum of incremental developments in the matter over time. The fulfillment of its capacity *qua* τελος is not the motion, but the oak itself. With motion these two fulfillments are distinct, with ενεργεια proper they are identical.

So, what does the definition of motion disclose about the meaning of ενεργεια? In the final analysis, the use of ενεργεια in the definition reveals little about its meaning. In all the versions of the definition, ενεργεια is used only once, with εντελεχεια in the rest. The definition is not, as Ackrill suggests, an attempt to express the ενεργεια-κινησις distinction. In fact, as I have shown, some interpretive work is needed to render the definition even *compatible* with the distinction. Motion is defined as a fulfillment of a capacity, but in a subtle and hard to explain way. As for the substitution of εντελεχεια for ενεργεια in Meta.XI, there are two possible explanations. The simple explanation is that the substitution was written in after Aristotle has clearly established (in Meta.IX) the legitimate extension of ενεργεια over the meaning of εντελεχεια. In this reading, ενεργεια means *fulfillment* or *actuality* and is synonymous with εντελεχειᾳ. I find this interpretation plausible but unsatisfying. It does not account for why it is replaced only once in XI (εντελεχεια remains in two of three versions of the definition). Nor does it account for why Aristotle made the change at all, if εντελεχεια was still a term in use.

I suggest that ενεργεια is *not* meant to be read as synonymous with εντελεχεια in the definition of motion at 1065b15. Rather, the replacement is intended to stress the activity of a certain sort of fulfillment. The εντελεχεια of δυναμις *qua potentiality* is 'being-at-work' of the δυναμις. Ενεργεια is meant to bring out the special sort of fulfillment motion is. Ενεργεια, more so than εντελεχεια, emphasizes that motion is the active

fulfillment of the potentiality as such. The rest of the definitions retain the term εντελεχεια to make it clear that the definition is not merely circular, i.e. to avoid reading the ενεργεια simply as activity. Ενεργεια in this instance, is not synonymous with εντελεχεια, rather it qualifies εντελεχεια. Ενεργεια does not replace εντελεχεια in the definition altogether, rather it is substituted in one formulation in order to bring out a certain connotation, i.e. in order to explain the sort of fulfillment of capacity motion is.

What purpose does the ενεργεια-κινησις distinction serve in Aristotelian theory? I think the distinction enables Aristotle to break with Platonic psychology and in doing so solve many of the problems occasioned by construing psychical activities as motions. The distinction allows Aristotle to attribute thought to the soul while also maintaining the soul is not in motion (except accidentally via the body). It allows him to attribute activity to God without entailing that God is in motion and therefore material. It supports the evaluative priority of πραχις over *ποιεσις*, since activity for its own sake is more complete than activity for the sake of some external product. It is in thinking through these conceptual developments that Aristotle is led to make the final step in the development of the meaning of ενεργεια. In the next chapter I will explain how ενεργεια gets extended to cover the concept formerly termed εντελεχεια, and thereby comes to bear the sense of *actuality*.

Chapter 4: εντελεχεια

In the introduction I asserted that four senses of ενεργεια could be found in writings of Aristotle.

1. Nascent sense: exercise of faculty
2. Broad sense: Activity
3. Strict sense: Non-kinetic, complete activity
4. Ontic sense : Actuality

In the second chapter I explained the development from the nascent sense into the broad sense, and the special use of the adverbial form. In the third chapter I explained the distinction between the strict and broad sense. The development from the broad sense to the ontic sense remains to be explained. Since Aristotle describes this extension of ενεργεια over the categories of Being as "tending towards the meaning of εντελεχεια"(1050a21) it will be useful for our purposes to examine the relationship between these two terms. There has been a relative dearth of secondary literature analyzing εντελεχεια in comparison to those articles devoted to unravelling the mystery of ενεργεια. In fact, many commentators have taken it for granted that they are to be used interchangeably (e.g.,Chen, Charlton, Polansky). Some consider the difference to be merely an aspectual distinction, describing the same phenomena from two evaluative perspectives (e.g. Ross, Bonitz). The *prima facie* evidence suggests that Aristotle uses εντελεχειά as a synonym of ενεργεια in some places, but distinguishes it from ενεργεια in others. My interpretation of the relation between the two terms can be summed up in four assertions: ενεργεια was coined prior to εντελεχεια; εντελεχεια was established as the correlative of δυναμις *qua* potentiality (i.e. actual X in relation to potential X); the adverbial form of ενεργεια began to range over instances of εντελεχεια; and Aristotle made the decision to replace the nominal εντελεχεια with an extended sense of ενεργεια. I will try to support this interpretation by (a) giving an account of the original implementation of the term 'εντελεχεια', (b) examining the extension of ενεργεια *via* its adverbial form, (c) indicating the confusion in terms that results from Aristotle's articulation of psychological activity and the 1st-2nd actuality distinction, (d) analyzing the

statements pronouncing the extension that occur in Meta.IX, and (e) evaulating evidence that ενεργεια was intended to replace εντελεχεια in the Aristotelian vocabulary.

(4.1) ESTABLISHING THE TERM 'εντελεχεια'

As I argued in Chapter 2, Aristotle coined the term ενεργεια to denote the exercise of a power, in an effort to clear up an ambiguity suffered by certain verbs. If, however, ενεργεια is the corresponding fulfillment of δυναμις *qua* power, what term corresponds to the fulfillment of a δυναμις *qua* potentiality? It would seem that ενεργεια, with its early meaning of *exercise* is not adequate to describe the fulfillment of a potentiality (or potential Being). Such a term would need to refer to the complete possession of the sort of Being which was formerly only potentiality. It would not be the *being-at-work* of the power, but rather the *possessing-the-end* of the potentiality. Εντελεχεια, or *εν*-τελος-*εχειν*, serves as an adequate correlate to δυναμις *qua* potential. There is little doubt that εντελεχεια was originally coined by Aristotle. Nor is it disputed that it was coined as a correlate of δυναμις. The question is why he felt the need to coin a term when he already had ενεργεια. It think this can be explained by pointing out that there were two senses of δυναμις that demanded two different corresponding fulfillment terms. My interpretive hypothesis is that Aristotle came to recognize, during the course of his work in physics and psychology, that these two correlatives of δυναμις were more intimately connected than he had originally assumed. Thus he began to regard εντελεχεια as an extraneous term, extending ενεργεια to cover its conceptual function (in addition to the fundamental sense of activity). Nevertheless, during the middle period of the development of his philosophy, Aristotle found it necessary to create εντελεχεια as a separate term from ενεργεια to denote specifically the fulfillment of a potential-to-be. The development of the concept of εντελεχεια proved to have many useful applications. It was used to solve the problem of the one and the many (i.e. the problem of universals); Aristotle remarks that "what is one may be either potentially one or εντελεχειᾳ one"(186a2). It was also employed to solve the

problem of γενεσις, explaining how something can come to be from nothing. The answer "consists in pointing out that the same thing can be spoken of in terms of potentiality and actuality"(191b28). As was indicated in chapter 3, εντελεχεια is used to define motion. In trying to solve these sorts of metaphysical problems, Aristotle initially used εντελεχεια, since it carried the meaning of *actuality* needed to address them. Until late in the development of his writing, Aristotle used ενεργεια as the correlate of δυναμις *qua* power, and employed εντελεχεια as the correlate of δυναμις *qua* potentiality.

Unlike ενεργεια, the first use of which is generally agreed to be in the Protrepticus, it is not certain in which text εντελεχεια was first employed. That it was established later than ενεργεια is clear; εντελεχεια does not occur in any early period text. It is completely absent from the Organon, Protrepticus and Rhetoric. Nor does it occur anywhere is the *Parva Naturalia* (the short scientific works) or in the late practical works (Constitution of Athens, N.E. and Politics). In fact, εντελεχεια only occurs with any frequency in Physics III, Gen.&Corr.II, De Anima II and Meta.V, VII, IX & XI.[89] In comparison, ενεργεια occurs in all major works.[90] It is evident, then, that εντελεχεια was established in the middle period.

Some insight into the coining of the term can be gleaned from the definition of *completion* in Meta.V.

> "The things which have obtained a good end are called complete; for things are complete in virtue of having attained their end. ... The ultimate thing for the sake of which is also an end"(1021b22).

An acorn is only potentially an oak. As such, it is an incomplete oak, mere potentiality.[91] It is completely 'what-it-is' when it has "attained its end". So, if

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[89] According to Blair's accounting (p.8-10), εντελεχεια occurs only in these works and De Caelo (3 occurrences), Meteorologica (1), Parts of Animals (1) and Generation of Animals (2).

[90] Ενεργεια is absent only from Sophistici Elenchi, De Incessu Animalium, De Divinatione per Somnum and the Constitution of Athens.

[91] The seed is mere potentiality with respect to Being-an-oak, although it is an actuality with respect to Being-a-seed. Thus, as Aristotle argues, in one sense actuality comes to be from potentiality, and in another sense actuality comes to be from a prior actuality.

you are seeking a term to signify the completed form in respect of some potentiality it makes sense to construct a neologism that implies *in-possession-of-its-end*, or *εν-τελ-εχεια*. Aristotle needed a term that referred to the complete Being of something as opposed to mere potential Being. Completeness, in the sense of being in complete possession of its end or form, is Aristotle's way of describing what the philosophical tradition has come to signify with the term 'actuality'. When pale-skinned Marla walks out onto the beach she is potentially tanned, i.e. she has the potential to be Marla-tanned rather than Marla-pale. At the end of a day of sunbathing she is tanned, in the sense that she is no longer pale. The τελος of the potential has been achieved. What was mere potential in the morning has become *actual* by evening. Thus, εντελεχεια is properly translated, from its first occurrence in Aristotle's writing to its last, as *actuality*. Just how it is that ενεργεια comes to mean actuality is more complicated, and requires much more speculation.

(4.2) εντελεχεια-ενεργεια DISTINCTION

There are four different general interpretive hypotheses asserted in the secondary literature to explain the relation in meaning of εντελεχεια and ενεργεια.

1. *Synonymy*: εντελεχεια and ενεργεια are interchangeable without prejudice.
2. *Distinct Difference*: the two terms were coined for distinct and incommensurate purposes
3. *Aspectual Difference*: the two terms refer to two aspects of the same thing
4. *Developmental Difference*: although the two terms were coined for distinct purposes, the distinction was blurred, or subverted through subsequent development.

(4.2.1) Synonymy

The synonymy explanation is the most common among commentators who are not specifically concerned with actuality itself, but more generally with ethics, metaphysics, etc. No commentator I have read has explicitly *argued* in support of this hypothesis. It is rather that commentators regard any distinction, if there is one, as too subtle to make a difference in their study. If there is no clear

and discernible difference in the use of the two terms, then it is acceptable to simply assume their synonymy and move on. As Charlton states the position;

> "Aristotle always uses (εντελεχεια and ενεργεια) in conjunction with a less technical word, δυναμις, of which the basic meaning is 'power.' Δυναμις and εντελεχεια or ενεργεια are invariably used to express a contrast but it is by no means clear that there is any one contrast they are invariably intended to express"(2).

Bonitz claims that the two terms "both are used promiscuously". Chen, in the article "The Relation Between the Terms Ενεργεια and Εντελεχεια in the Philosophy of Aristotle" argues that if the meaning of the terms is determined by their use, then they are indistinguishable.

The synonymy explanation is not, however, really an explanation at all. It is a principle of expedience. Even those who use the synonymy principle in translating the terms do not argue that Aristotle considered them synonymous. This explanation merely suggests that whatever Aristotle *intended*, we can accurately render his arguments without distinguishing between ενεργεια and εντελεχεια. Chen concludes his paper with the assertion that

> "the terms ενεργεια and εντελεχεια do have a difference; yet this difference does not lie in their meaning, but in their derivation and development"(17).

He supports the claim that the two have the same meaning by (a) sketching out the various 'senses' of ενεργεια found in the corpus, and then (b) citing passages in which εντελεχεια carries each of these senses. Although I agree generally that there are uses of ενεργεια in which it means the same as εντελεχεια, the opposite does not hold. Ενεργεια does develop to cover all the cases described in terms of εντελεχεια, but not vice versa. Contrary to Chen's paper, εντελεχεια never has a 'kinetic' sense.[92] So, while synonymy may be useful as an expedient in translations in which the focus does not concern subtle metaphysical

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[92] My position on this point accords with Stephen Menn's; "ενεργεια seems to be ambiguous in Aristotle himself between 'actuality' and 'activity', whereas εντελεχεια always means 'actuality'"(75).

distinctions, it does not adequately explain the interconnection of εντελεχεια and ενεργεια.

(4.2.2) Distinct Difference

The distinct difference explanation asserts that εντελεχεια was established for a conceptual purpose distinct from that of ενεργεια, that the terms refer to different ways of Being or distinct modalities, and that the distinction was never resolved or collapsed. It is a somewhat plausible suggestion if it is granted that εντελεχεια is the correlate of a sense of δυναμις (potential Being) significantly different from the δυναμις (power) correlated to ενεργεια. There are, however, two decisive reasons why no interpretation regards this as a defensible position. First, Aristotle explicitly states, in Meta.IX, that the meaning of ενεργεια has been extended to cover the same things formerly denoted by εντελεχεια. If the two meanings were incommensurable, this extension would be impossible. Second, there are too many cases in which ενεργεια and εντελεχεια are used in close proximity to denote the same things. Such passages in Physics, De Anima and De Caelo are evidence that the distinction must be either aspectual or developmental.

(4.2.3) Aspectual Difference

The most popular explanation is that 'εντελεχεια' was coined to describe another aspect of that which 'ενεργεια' had already signified. Just what these two aspects are is not as clear or agreed upon. I will discuss four of the more plausible suggestions, rejecting them all in favour of the developmental explanation.

One way to describe the distinction between the two terms is to distinguish the act as developed from potency (ενεργεια) from the act in itself (εντελεχεια). Menn quotes Bonitz' articulation of this position:

> "Aristotle distinguishes εντελεχεια from ενεργεια in such a way that ενεργεια signifies the action by which something passes from possibility to full complete reality, and εντελεχεια signifies completeness itself"(76).

Thus understood, ενεργεια and εντελεχεια are just two aspects of the same thing, depending on whether the emphasis is on the act or the actualizing. Now, it is true that εντελεχεια does *not* have a corresponding verb, and cannot therefore

by used to describe the 'process' of actualization, i.e. the transition from potentially-X to actually-X. But this is not consistent with his use of ενεργεια in any period. In the early period ενεργεια means activity; it does not yet have εντελεχεια to compare to, nor does it necessarily emphasize the transition from possible to actual. Ενεργεια's usefulness in addressing the possession-use ambiguity lay in its adequacy for denoting the activity itself. In the middle period, as will be shown later, ενεργεια is often indistinguishable in meaning from εντελεχεια, and in other places it refers to the activity itself (the sort of fulfillment characteristic of causal powers), as opposed to some actuality in itself (the sort of fulfillment characteristic of δυναμει *ον*). In the late period there are even more problems running this interpretation. For example, how are we to read "substance in respect of form is ενεργεια"(1050b2)? Surely Aristotle is asserting that substance is an *actuality*, not that it undergoes, *qua* form, *actualization*. The activity of God and expression of knowledge are even more difficult to construe as actualizations.

Alternatively one may think of εντελεχεια as a correlative of κινησις, being together the two types of ενεργεια; εντελεχεια being activity with an end in itself, κινησις as an activity with an external goal. This cannot be right, since a κινησις can achieve its end in an εντελεχεια (213a5, 417a6). In none of the passages in which Aristotle is distinguishing kinetic from non-kinetic ενεργεια is the term εντελεχεια employed in this manner. Εντελεχεια signifies the end of motions, and signifies *complete activity* in the sense of a 2nd actuality.

Another possible explanation is that εντελεχεια describes the *end* or τελος of an ενεργεια in the broad sense. Michael of Ephesus (as quoted by Menn) expresses this position;

> "ενεργεια is said in two ways, in one way the ends themselves (for the end of whitening, i.e. the white, in which the whitening ceases and rests, is called ενεργεια, and in the same way the ends of the other κινησεις are called ενεργεια, but these are what he especially calls εντελεχεια) - so in one way ενεργεια is said of these things, but in another way the κινησις itself is called ενεργεια"(76,n.6).

On this reading, εντελεχεια is the end of an activity (either kinetic or non-kinetic), whereas ενεργεια can range over either the activity itself or the end. As the example quoted illustrates, ενεργεια may refer to the process of turning white, or the being-white itself, i.e. the accomplished end of the process. I think that ενεργεια can indeed range over both. The problem for this interpretation is that εντελεχεια can also. As the 1st-2nd actuality distinction in De Anima argues, εντελεχεια may signify the actuality of either the faculty or its exercise. For example, learning is a process that results in knowledge, a certain ἕξις in the soul. Possession of this knowledge-in-the-soul is an εντελεχεια or 1st actuality. The exercise of this faculty is also an εντελεχεια. The activity of thought, i.e. the using of the knowledge, is the 2nd actuality. So in this case, εντελεχεια is behaving precisely as Michael argues ενεργεια does, and thus it is not distinct *in this respect*. Michael might have countered by stressing that the 'ends themselves' are what Aristotle '*especially* calls εντελεχειαι'. In other words, even though ενεργεια and εντελεχεια are often unreflectively interchanged in the text, εντελεχεια emphasizes the end, whereas ενεργεια emphasizes the activity. They range over identical objects, and their difference is not in meaning but in emphasis. This explanation, then, reverts to a sort of synonymy. Ενεργεια has more than one sense, and εντελεχεια shares each of those senses; except that in each case εντελεχεια emphasizes the end as opposed to working towards an end. Besides failing for the same reasons that the synonymy explanation fails, then, this explanation ultimately fails because it cannot account for uses of εντελεχεια in which no activity is involved, no process of which εντελεχεια implies its end. Presumably, Aristotle thinks that primary Being exists in actuality, not as the end of an activity (1074a35). Εντελεχεια signifies actuality of any sort, not just of ends. It may stand for actually white, actually true, or actually in possession of its end; actually able to move, actually in motion or actually moved. My point is that many legitimate uses of εντελεχεια do not imply the end of a process or activity.

Another quite similar way of explaining the εντελεχεια - ενεργεια relation in terms of an aspectual difference suggests that εντελεχεια implies completeness, rather than end. Εντελεχεια signifies the act as perfect and

complete, whereas ενεργεια signifies the act without such implications. In this reading, ενεργεια is the broader of the two; εντελεχεια is ενεργεια *qua* τελειος. This is more plausible, insofar as it does not imply some former activity or process. Any complete possession of an end or form could be properly described as actual. Graham suggests an aspectual reading of this sort. Εντελεχεια, he asserts, refers to complete actuality, whereas ενεργεια signifies actuality of any degree higher than mere potentiality. Thus, the seed is only potentially an oak, but the sprout, sapling and mature oak are all *ενεργεια on*. Only the mature oak is, however, εντελεχεια. If this were the distinction Aristotle was trying to draw, he would likely have avoided referring to the mature oak in terms of ενεργεια. That way, there would be no overlap in terms between the actualizing and the fully actualized. In such a scheme, ενεργεια could retain its active implications without strain, and εντελεχεια would not be used to describe the ongoing Being of motions. Unfortunately for Graham, Aristotle makes no effort to argue in this way. Certainly, if an aspectual duality were the intent behind the two terms, Aristotle would not have explicitly extended ενεργεια as he did in Meta.IX. This reading is a "wouldn't it be nice if..." hypothesis, rather than an explanatory theory backed by clear textual evidence.

(4.2.4) Developmental Difference

It is important to note that I do not deny that some of these aspectual subtleties are at work in various texts. What I am denying is that εντελεχεια was coined for the purpose of describing an alternate aspect of that which ενεργεια alone formerly signified. As I have argued, εντελεχεια was coined as the correlate of δυναμις *qua* potentiality, a conceptual vacancy that, in the early period, Aristotle for some reason thought ενεργεια was unable to fill. Εντελεχεια *does* imply completion and τελος in a way ενεργεια does not, but this is an accident of its linguistic root, rather than its intended subtlety. The impact of these implications can be explained more adequately by a developmental account of the ενεργεια - εντελεχεια relation than by aspectual or synonymy theories.

My developmental explanation is simple, but it adequately accounts for the various uses of the two terms. Εντελεχεια was not yet conceived in the early period. It was established in the middle period to signify the correlate of potential-to-be (as opposed to power-to-act for which ενεργεια was coined). Throughout the middle period Aristotle uses both ενεργεια and εντελεχεια, and often the distinction between them is blurred in reference to psychological states and the physics of motion. Eventually he discovers that they are ranging over the same entities, or, perhaps more accurately, ενεργεια and εντελεχεια are signifying the same mode of Being. In the late period Aristotle explicitly replaces εντελεχεια, using ενεργεια alone thereafter to signify both activities and actualities.[93]

(4.3) PROXIMATE USES OF εντελεχεια & ενεργεια

The functioning of the terms as they occur in close proximity provides valuable evidence for the developmental explanation. Perhaps it would be useful at this point to refer to some concrete examples of books in which both ενεργεια and εντελεχεια are used. I will focus on the four works in which there is the most frequent overlap of the two: Metaphysics, De Caelo, Physics and De Anima.

Meta.V is an interesting case study in the development of ενεργεια. In this book ενεργεια denotes *activity*. It is used to describe a sense of ἑξις (1022b5), the activity of the passions (1022b19), and the exercise of a causal power (1021a15).[94] The adverb εντελεχειᾳ means *actually* throughout Meta.V (e.g. 1015a20, 1017b1, 1023b35). But the instances of the present participle *ενεργουντα* blur the distinction between *actively* and *actually*. For example, Ross translates 1014a20 as, "all (causes) may be taken as acting (ενεργουντα) or as having a capacity (κατα δυναμιν)", whereas Tredennick translates as,"(causes)

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[93] My developmental account was heavily influenced by Blair and Rist, both of whom assert that εντελεχεια is eventually replaced by ενεργεια. As Rist concludes,"(Aristotle) did not persist in this apparently useful distinction which would have left ενεργεια nearer its original and natural meaning. On the contrary his latest writings seem to insist that εντελεχεια return to the comparative obscurity from which it emerged" (119).

[94] See also 1020b20, in which ενεργεια is coupled with κινησις.

are all either actual or potential". The participle seems to denote the actual cause, which is of course complete and actual when it is *activated.*[95] Ενεργουντα, it seems, connotes actuality precisely in those cases that concern the power-exercise distinction; i.e. the subject ενεργεια was originally coined to explain. However, the single instance of the adverb ενεργειᾳ unambiguously means *actually*.

> "And (2) that which is continuous and limited is a whole when it is a unity composed of several parts (especially if the parts are only potentially present in it; but otherwise even if they are present actually)."

It makes no sense to assert that there is a unity of the whole in which the parts are engaged in activity. He simply must be using the adverbial form of ενεργεια to signify, as εντελεχειᾳ does in Meta.V, something as obtaining actually rather than potentially.

In De Caelo I.12 we see Aristotle struggling with similar problems in trying to argue that a relation of mutual entailment presides between 'ungenerated' and 'indestructible'. Ενεργεια is ambiguous between activity and actuality;

> "If the capacity is present prior to the activity, it will be present for all time, even while the thing was as yet ungenerated and non-existent but capable of being generated"(283a20).

Although J.L.Stocks (from Barnes' Complete Works) translates the term as activity, the context seems to favour actuality. Aristotle is, however, discussing the exercise of a power, or the capacity for being in a certain way. But it is not as straightforward a case as from the power of sight to the exercise of that power; he is discussing the existence of eternal beings. So, while he retains the use of the term ενεργεια in this case to denote the activation of a certain power-to-be, it is evident that its meaning is strained, and extending toward the more ontic sense. Two lines later this reading is supported by the use of εντελεχειᾳ;

> "For otherwise it will always be at once destructible and in actuality indestructible, or for a thing which is ungenerated and has always hitherto existed to be destroyed" (283a27).

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[95] Other instances of ενεργουντα occur at 1014a5, 1014a21 and 1021a15.

The 'in actuality indestructible' is just an odd translation of αφθαρτον εντελεχειᾳ, actually indestructible. The absurd consequence of predicating actual destructibility and actual indestructibility of the same thing results from a misunderstanding of the nature of the eternal. The significance of this use of εντελεχειᾳ is that for the rest of the De Caelo I.12, ενεργειᾳ is used to draw out similar absurd conclusions (using what Richard Bosley refers to as the *modal procedure*). At 283b6 Aristotle asserts a direct parallel with the absurd conclusion cited earlier from 283a27 using εντελεχειᾳ; "Hence, opposites would be present together in actuality." Similarly, at 283b10, 12 and 16, ενεργειᾳ means *actually*.[96] By the time of writing De Caelo Aristotle was using the adverbial forms of the two terms to signify the same things, the same modes of Being. Yet, however strained the nominal form is by its signifying *powers-to-be* it is still right to translate it as *activity*.[97]

The same can be said for the use of the two terms in the Physics. In IV.5 Aristotle uses ενεργεια and εντελεχεια in the same argument.

> "so too air is related to water, for one is like matter, the other form - water is the matter of air, air as it were the ενεργεια of water; for water is potentially air, while air is potentially water, though in another way. ... If the matter and the εντελεχεια are the same thing (for water is both, the one potentially, the other εντελεχειᾳ), water will be related to air in a way as a part to a whole"(213a3).

Here is an aborted attempt to explain matter as a 'part' of form; an attempt that was later abandoned in favor of identifying matter and form as constituents of the substantial complex. I submit that ενεργεια in this passage is, as it was in De Caelo, ambiguous between activity and actuality. Ενεργεια is the activity of the

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[96] Also, in De Caelo III.2 ενεργειᾳ clearly means actually; the actual body (σωματος ενεργειᾳ) X is generated from a potential for X, but the body must be something other sort of actual body Y; so the actual comes from the potential in one sense, and from the actual in another sense. The argument is incomprehensible if translated in terms of *power* and *activity*.

[97] Part of understanding what is going on in the difficult passages in De Caelo, Physics, and De Anima is understanding the conceptual strain placed upon ενεργειᾳ. It is for this reason I recommend translating the term as activity throughout, despite its linguistic infelicity. Noticing the difficulty of explaining the fulfillment of a potential-to-be-X in terms of its activity is a useful interpretive tool.

water, air being a certain activity of water. It is possible that at this confused conceptual stage there is an aspectual distinction between εντελεχεια and ενεργεια. It is important to note that ενεργεια is ambiguous, but εντελεχεια clearly means actuality, (i.e. the possession of a complete form). There are further examples showing that ενεργειᾳ is being used to mean *actually*, synonymously with εντελεχειᾳ. At 206a21 the 'infinite' is said to *be ενεργειᾳ* in a certain sense; i.e. it actually is in virtue of ranging over a limited period, as a day or a game. Εντελεχειᾳ is used in the same explanation, using the exact same examples of day and game just a one page later, at 206b12.[98]

(4.4) 1st & 2nd ACTUALITY

De Anima is a crucial text for determining the relation of εντελεχεια and ενεργεια. I suggest that it was in trying to explain psychological phenomena that Aristotle realized ενεργεια could be used to cover the conceptual function of εντελεχεια. It was, in fact, already covering the sense of *actually* in its adverbial form. This suggestion is most plausible in consideration of the 1st-2nd actuality distinction. Although it is explained in terms of εντελεχεια, the things described in the examples are things signified as ενεργεια from the earliest texts. Reflection upon his De Anima text might have motivated Aristotle to explicitly replace εντελεχεια in Meta.IX.

As in the Physics and De Caelo, there is some ambiguity over the meaning of ενεργεια in De Anima. The adverbial forms, ενεργειᾳ and κατ'ενεργειαν, are best translated as 'actually', but have a very active sense.[99] Εντελεχεια and its adverbial form are uncontroversially translated as 'actuality' and 'actually', respectively. But ενεργεια is less clear. It seems intended to mean *activity*, but is applied to things that one would generally describe as actualities. Accounting for

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[98] The Generation of Animals 734b35-a4 has another example of the adverbial forms of εντελεχεια and ενεργεια used together, although it seems that here ενεργεια has slightly more active emphasis.

[99] Perhaps the adverbial in De Anima would best be translated *actively* if not for the unfortunate and mistaken implication of an opposition with *passively*.

psychological phenomena strains the meaning of ενεργεια, forcing Aristotle to extend its meaning from mere *exercise* to *actuality* in the ontic sense.

For example, at 425b27ff, κατ᾽ενεργειαν literally means *in the sense of activity*, but its context makes it clear that it signifies what comes to be understood by the ontic descriptor *actually*.

> "The ενεργεια of the sensible object and that of the sense is one and the same, and yet the distinction between their being remains. Take as an illustration sound κατ᾽ενεργειαν and hearing κατ᾽ενεργειαν; a man may have hearing and yet not be hearing, and that which has sound is not always sounding. But when that which is capable of hearing is hearing *ενεργειᾳ* and that which can sound is sounding, then the hearing κατ᾽ενεργειαν and the sound come about at the same time."

How are we to read ενεργεια in the first line? It is easy to conceive of sensation as an activity, but what of the ενεργεια of the sensible object? It is the actuality of the sensible object that informs the sense organ. Actual-white causes the sensation-of-white, actual laughing is actually heard. At 431a1-10 κατ᾽ενεργειαν describes the sense of knowing that is identical with its object. He then states the general principle that everything comes-to-be from that which *is εντελεχειᾳ*. From this he deduces a particular principle that the actual sense object causes that which has the capacity for sensation to actually (ενεργειᾳ) sense. From this, it seems that ενεργεια is extending to mean *actuality*, but then in the very next line he defines κινησις as an incomplete ενεργεια (in which context it must mean *activity*).

Another instance of ambiguity in De Anima occurs at 414a10-18. Aristotle describes knowledge as a certain ενεργεια of the soul, just as health is an ενεργεια of the body.

> "Knowledge or health is a form, essence or account, or if we so express it an ενεργεια of a recipient matter"(414a10).[100]

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[100] The Greek for what the Complete Works translates as "form, essence or account" is "μορφη και ειδος τι και λογος".

A few lines later (414a18) he asserts that matter is δυναμις, and form is εντελεχεια. Apparently the ενεργεια is referring to the same thing to which the εντελεχεια is referring. The soul is the εντελεχεια of a body potentially possessing life. It is possible that at 414a10 Aristotle was describing knowledge as what a soul does, i.e. a certain activity of the soul. But even then it must have occurred to him that this is precisely what he meant by an actuality, as expressed by εντελεχεια.

This ambiguous use of ενεργεια becomes even more apparent in Aristotle's discussion of 1st and 2nd actuality. Ironically, Aristotle articulates this distinction as an effort to clarify a linguistic ambiguity. It is a problem similar to the one addressed in the Protrepticus. Whereas there he was interested in distinguishing the faculty from its exercise, he is here interested in distinguishing four conditions of the soul:

(i) possessing the potential for a faculty
(ii) attaining a faculty
(iii) possessing a faculty
(iv) exercising a faculty.

According to the distinctions I have outlined earlier in this essay, these four conditions may be described in terms of:

(i) δυναμις
(ii) κινησις
(iii) ἑξις
(iv) ενεργεια

He articulates this distinction in the following passage;

> "We can speak of something as a knower either as we say that man is knower, meaning that man falls within the class of beings that know or have knowledge, or as when we are speaking of a man who possesses a knowledge of grammar; each of these has a potentiality, but not in the same way: the one because his kind or matter is such and such, the other because he can reflect when he wants to, if nothing prevents him. And there is the man who is already reflecting – he is a knower in actuality (εντελεχεια) and in the most proper sense *knows*. Both the former are potential knowers, who realize their respective potentialities, the

> one by change of quality, i.e. repeated transitions from one state to its opposite under instruction, the other in another way by the transition from the inactive possession of sense or grammar to their active exercise (ενεργειν)"(417a24ff).

Menn glosses the prevalent reading of the doctrine as:

> "the threefold division of things in the soul into δυναμεις, ἑξεις, and ενεργειαι, where δυναμις proper is the first potentiality, ἑξις is the first actuality and second potentiality, and ενεργεια proper is the second actuality"(Menn88).[101]

Take the example of swimming. All humans, provided their minds and bodies are intact, have the capacity to swim. But the capacity can be understood in two ways. First, all men can *learn* to swim; i.e. they have the potential to attain a capacity for a certain activity. Secondly, men can have the capacity to swim, i.e. they have practiced certain motions and can move themselves skillfully through the water whenever they so choose. These are commonly termed first and second potentiality, respectively. Similarly, one can talk of a 'swimmer' in two ways. First, a swimmer is someone who has the capacity to swim (identical with the second potentiality, or ἑξις). Second, a 'swimmer' is someone actively engaged in swimming, a second actuality, or ενεργεια proper. Although the theory is often expressed in terms of first and second actuality, and the corresponding first and second potentialities, only the phrase πρωτη εντελεχεια appears in Aristotle.[102]

An accurate manner of depicting this doctrine is by a threefold division;

δυναμις → ἑξις → ενεργεια

Potentiality → Faculty → Activity

Capacity for language → Knowledge of French → Speaking French

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[101] This doctrine is repeated in the Physics; "one who is learning a science knows potentially in a different way from one who while already possessing the knowledge is not actually exercising it....(for one who possesses knowledge of a science but is not actually exercising it knows the science potentially in a sense though not in the same sense as before he learnt it)"(255a33-b2).

[102] The only two occurrences of this phrase are; "the soul is an actuality of the first kind"(412a27) and "we must describe (the soul) as an actuality of the first kind of a natural organised body"(412b5). There is no explicitly stated first or second δυναμις or ενεργεια, nor is there a *δευτερα* εντελεχεια. Aristotle does, however distinguish basic potential from ἑξις, stating that δυναμις can be spoken of in two senses, and often uses δυναμις to refer to a ἑξις; e.g. "the same thing can be δυναμει in a more proximate or more remote way, as the sleeping geometer is more remote than the waking geometer, and he than the geometer who is contemplating"(GA.735a9).

If we add the process by which the ἕξις is obtained, the division becomes fourfold;

(i) δυναμις → (ii) κινησις → (iii) ἕξις → (iv) ενεργεια

For example, (i) capacity for memory, (ii) learning state capitals, (iii) knowing state capitals, and (iv) recalling that Dover is the capital of Delaware. It is evident that ambiguity will result from this schema. First, both (i) and (iii) are properly described as δυναμεις. Second, both (iii) and (iv) signify εντελεχεια; (iii) is a *πρωτη* εντελεχεια and (iv) is εντελεχεια "in the most proper sense". Third, and most troubling for the purposes of this paper, ενεργεια is used to denote (ii), (iii) and (iv). Recall that in the Protrepticus passage discussed in chapter 2 Aristotle was trying to distinguish the faculty or δυναμις (iii) from its exercise or ενεργεια (iv). However, ενεργεια in the broad sense encompasses all activities, including κινησεις (ii). In many other instances, such as 429b5-10, ενεργεια stands for a '1st actuality'(iii).

At Meta.IX.2 Aristotle divides all faculties in the soul into either (i) innate, (ii) acquired by practice, (iii) or attained through study.[103] I speculate that this distinction is more a division of *ἕξεις* in the soul, than a distinction among δυναμεις in general. The sensory faculties are both innate and passive, and require no prior activity to become characteristic. Those acquired through practice or through study require an activity to realize the ἕξις.[104] Thus, some capacities of the soul are capable of ενεργεια proper without prior activity. Most require some prior, more basic potentiality to be inculcated. Thus, the learning of all arts requires mimetic activity, which draws upon the τεχνη of the master as the formal cause. The capacity to learn an art (a δυναμις) is actualized (a κινησις) by attaining that capacity (ἕξις), which serves as the potential for productive

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[103] Meta.1047b31f; also relevant is the assertion "All productions are called 'makings'. And all makings proceed wither from art, or from a capacity or from thought"(Meta 1032a26). 'Capacity' must refer to innate potentials, such as the sensory powers, which are actualized in exercise. The other two must refer thoughts and sciences. I must assume that he is talking mainly about *ἕξεις* of the soul. Among the innate capacities, some may actualized by some κινησις toward a ἕξις (acquiring a virtue), and some are simply exercised (acting justly).

[104] Meta.1047b31, NE1103a30-b22.

activity (ενεργεια).[105] The actualization of a first order power is a κινησις from an innate potential to acquisition of a `εξις. The activity is a κινησις, because it results in a *μεταβολη* in the learner.[106] The mimetic activity habituates the soul of the apprentice, establishing a capacity. Once the `εξις is established by repetition of the proper activity, under the guidance of a teacher possessing the respective τεχνη, the labourer becomes an artisan in the true sense.[107]

In the 1st-2nd actuality distinction the confusion of terms is evident. I suggest that Meta.IX is, in part, concerned with clearing up this confusion. Meta.IX.1-2 & 5 address, among other things, the ambiguity between δυναμις in the (i) and (iii) senses. IX.6 addresses the ambiguity between (ii) and (iv). IX.8 explains ενεργεια in its ontic sense, the sense in which it replaces εντελεχεια as signifying (iii), (iv) and actuality in general.

(4.5) ONTIC EXTENSION OF ενεργεια

My developmental account asserts that the appearance of ενεργεια-εντελεχεια synonymy is the result of ενεργεια *coming-to-mean* actuality. I have argued that ενεργεια was, in the middle period, used to signify the same things as

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[105] "Hence all arts, i.e. the productive sciences, are potencies; because they are principles of change in another thing, or in the artist himself *qua* other"(Meta.1046b3).

[106] There are two κινησεις simultaneously at work that ought not to be confused. The one being here discussed is the *learning* (e.g. becoming a sculptor). But there is also the *doing* (e.g. sculpting). It is a κινησις that draws upon the τεχνη of a master as its efficient cause, and the apprentice is merely the cause by concurrence, as the tools can be said to be the cause of the κινησις. Notice, all learning is κινησις, even concerning activities. One might think that learning, which is the paradigmatic exemplar of ενεργεια proper would be reasoning, and therefore an ενεργεια, not a κινησις. But it is only reasoning in an incomplete sense, insofar as the end of the reasoning is not in the activity itself, rather, the τελος of the reasoning is the attainment of a skill, a `εξις in the soul. The τελος is not the mere exercise of a faculty, but the attainment of that faculty. Aristotle alludes to this point; "those who are learning by practice... do not really speculate, but only in a limited sense, or about a subject they have no desire to speculate"(Meta.1050a14).

[107] "Acting well is the end, so it too is a certain action; and even in the case of external actions we speak of those who by means of their thoughts are master craftsmen as acting in the authoritative sense"(Pol.1325b21); "It is by playing the harp that men become both good and bad harpists, and correspondingly with builders and all the other craftsmen: a man who builds well will be a good builder, and one who builds badly a bad one. For if this were not so, there would be no need for an instructor, but everyone would be born as a good or bad craftsman"(N.E.1103b8-13).

εντελεχεια, and that the adverbial forms of ενεργεια must be understood in those contexts to mean *actually*. I will now make the stronger case that in the late period Aristotle perspicuously sanctions the extension of the meaning of ενεργεια to the ontic sense.

During my study of the ontic extension of ενεργεια, a question of motivation arose. If it is agreed that the term developed from mere activity to denote actuality, then what it was that motivated this development must be accounted for. In particular, if indeed Aristotle purposely extended the meaning of ενεργεια in Meta.IX he must have had good reason for doing so. The reasons asserted by each of the four surveyed commentators (as well as my initial answer) are:

Conceptual Drift (Beach)
Problem of γενεσις (Menn 74)
Account for Psychological Phenomenon (Rist 112)
Inadequacy of εντελεχεια (Blair 152-155)
Hylomorphism (Graham 194-202)

The process of gathering evidence to make my case for conceptual drift (my theory that metaphysical connections between referents caused a linguistic connection in the signifiers) made me realize that these motivation hypotheses are not mutually exclusive. In fact, all of them have to some degree found their way into my developmental account. I discuss linguistic drift with respect to the adverbial form of ενεργεια preceding the nominal form in ontic extension. I agree with Menn that the problem of γενεσις caused Aristotle to establish εντελεχεια, and thus create the problem of having two correlative terms for δυναμις. I agree with Rist that speculation regarding psychological phenomena, producing obvious problems in *1st-2nd actuality* account in De Anima, motivated Aristotle to re-evaluate his philosophical vocabulary. I agree with Blair that Aristotle intended to replace εντελεχεια in his mature works, although his reasons for doing so are highly speculative. Finally, I think Graham's insight into the changes in Aristotle's doctrine due to the 'hylomorphic turn' provide some clues as to why replacement of εντελεχεια was warranted.

The clearest evidence for this assertion is that Aristotle explicitly states that ενεργεια has legitimately extended its meaning. I intentionally express this assertion in terms of *ενεργεια itself* extending its meaning because I think that this genuinely captures how Aristotle conceives of the relation between language and reality. Language is an attempt to express reality, and the world can force language to conform to its truth. What Aristotle is doing in Meta.IX is not dictating a new use for a term, but rather sanctioning and arguing in support of an extension that was already taking effect in his philosophic vocabulary. He noticed that ενεργεια has begun to range over all the same things as εντελεχεια. Reflection upon this linguistic fact, and the resulting ambiguity in texts such as Physics and De Anima caused him to reconsider actuality and the ενεργεια-δυναμις correlation. The result of this re-examination is Meta.IX, his final word on the concept of actuality.

He explicitly articulates this ontic extension of ενεργεια in four passages in Meta.IX. Each passage contains important clues as to the nature of the ontic extension. The first passage occurs in the opening paragraph of Meta.IX.1.

> "Since the senses of Being are analyzable not only into substance or quality or quantity, but also in accordance with δυναμις and εντελεχεια and εργον, let us gain a clear understanding about δυναμις and εντελεχεια; and first about δυναμις in the sense which is most proper to the word, but not most useful for our present purpose – for δυναμις and ενεργεια extend further than the mere sphere of motion. When we have discussed this sense of δυναμις we will, in the course of our definitions of ενεργεια explain the others also." (1045b33-a2)[108]

It is possible to read a subtle sanctioning of the ontic extension into the structure of this opening paragraph. He begins the quoted passages with a reference to the sense of Being discussed in the two preceding books, his discussions of *καθ αυτο* Being. But he writes, Being is also analyzable in terms of εντελεχεια, δυναμις and εργον. In the next line, however, he switches to ενεργεια, and uses it almost

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[108] This passage is taken from Hugh Tredennick's Loeb edition translation for Meta.IX.

exclusively for the rest of the book.[109] I suspect that the switch is no accident; the odd structure serves some useful functions. First, it explicitly ties this discussion back to the fourfold division in Meta.V.7. The account of Being in Meta.V.7 establishes four general senses; Being *per se*, accidental Being, Being as truth and *actual-potential* Being. Truth and accident are explained in Meta.VI, and Being *per se*, i.e. the sort of Being expressed by the categories of substance, quality, quantity, etc, is explained in Meta.VII-VIII. Thus, the stage is set for Meta.IX to discuss Being in terms of actuality and potentiality. It is important to note that in Meta.V, in which this fourfold division of the senses of Being is first established, εντελεχεια is the term used to denote actuality in correlation to δυναμις *qua* potentiality. The reader will expect to find a discussion of Being in terms of εντελεχεια and δυναμις at this point. Yet, having tied the discussion in with the general discussion from V-VIII, he then makes a bold alteration; ενεργεια replaces εντελεχεια. The implication is that, despite his earlier characterization, the *actuality-potentiality* distinction is better expressed in terms of ενεργεια. Second, there is special significance to the inclusion of εργον at 1045b34. I suspect that he includes εργον here as a synonym for activity, thus implying that ενεργεια can function as the correlate of δυναμις *qua* power (εργον) and *qua* potentiality (εντελεχεια). He introduces ενεργεια in its fundamental sense regarding activities and motions, but cautions immediately that its meaning "extends further than the mere sphere of motion". He promises to discuss δυναμις in its primary sense of 'the source of change in another thing', and then to move on to discuss the sense of δυναμις and ενεργεια that is "more useful for our purposes". This more useful sense is the ontic sense of ενεργεια, and its correlative δυναμις *qua* potentiality.

The concluding paragraph of Meta.IX.3 provides a more definite statement of the ontic extension of ενεργεια.

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[109] The only instances of εντελεχεια for the rest of Meta.IX are either in this first paragraph, or in a passage directly relating it to ενεργεια. It has no independent use in Meta.IX.

> "the term 'ενεργεια', which has come about with respect to εντελεχεια, is extended, most of all from motions to other things; for ενεργεια seems most of all to be motion. For this reason too people do not credit things which are not with being moved, though they do assign some other categories, for example things which are not are capable of being thought and desired, but not moved, and this because not being ενεργειᾳ they will be ενεργειᾳ. For of things that are not some are δυναμει; but they are not because they are not εντελεχειᾳ"(1047a30-b2).[110]

The key phrase here is "'η προς την εντελεχειαν συντιθεμενη" which Bosley translates as "which has come about with respect to εντελεχεια". Alternatively, Tredennick translates this passage as 'with its implication of complete reality', and Ross as 'which we connect with fulfillment'. This supports my assumption that Aristotle considers ενεργεια to mean both activity and actuality. What he is suggesting in this passage is that the meaning of ενεργεια has been extended from its activity sense (which applied primarily to motions), to the sense that was heretofore denoted by the term εντελεχεια, i.e. its ontic sense. The sense of ενεργεια that is fundamental is *activity*, but the sense that is 'more useful' for analyzing Being is *actuality*. He strengthens the implication that ενεργεια can stand for actuality (as usually characterized by the term εντελεχεια) by overtly showing how the adverbial forms of the two terms denote precisely the same modality. The absurdity of predicating motion to non-existent things is that they will both actually (ενεργειᾳ) be, and actually not be. So, of non-existent things, some may be potentially, but they cannot actually (εντελεχειᾳ) be.

In another passage, Aristotle justifies the ontic extension by indicating a linguistic connection between ενεργεια and εντελεχεια.

> "For the action is the end and the actuality is the action. Therefore even the word 'actuality' is derived from 'action' and points to fulfillment"(1050a21).

The connection takes the form of a syllogism;

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[110] I am using an original translation by Richard Bosley, in order to leave εντελεχιεα and ενεργεια untranslated.

i) the ενεργεια is the εργον

ii) the εργον is the τελος

iii) therefore, the ενεργεια is the τελος

Εργον is the middle term that connects the ενεργεια to τελος. Since ενεργεια was etymological rooted in the concept of εργον and εντελεχεια was similarly based on the concept of τελος, Aristotle concludes that there is a *prima facie* linguistic connection. The metaphysical relation between the *act* and the *end* influences the meaning of the terms that signify the realization of acts and ends. For any power, its exercise is its end. Thus, even in its *activity* sense, ενεργεια "tends to have the meaning of εντελεχεια." Aristotle is claiming that reality is forcing language, i.e. an underlying relation between activities and ends, as they exist in the world, both motivates and justifies the ontic extension of the term ενεργεια.

There is one more passage that supports the theory that Aristotle is explicitly arguing for the extension of ενεργεια in Meta.IX. Its persuasive force depends on acceptance of my earlier suggestion that the adverbial form of ενεργεια means *actually* prior to the ontic extension of the nominal. In Meta.IX.6 Aristotle sets up an analogy aimed at illustrating ενεργεια *qua* actuality by means of examples. In the first paragraph of chapter 6 he states his intention to discuss δυναμις and ενεργεια in the sense not concerned with motion.

It is the opening line of the second paragraph that is significant. Having characterized the examination of ενεργεια in the ontic sense as an inquiry into "what it is, and what its qualities are"(1048a25) he begins the second paragraph with a bold statement of what ενεργεια as such *is*.

> "Ενεργεια means the existence of the thing, not in the way which we express by *potentially*" (1048a30).[111]

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[111] Alternate translations of this crucial statement are;
"ενεργεια is the thing's obtaining, *not* in the way we describe as δυναμει" (Bosley)
"'ενεργεια' means the presence of the thing, not in the sense which we mean by 'potentially'" (Tredennick)

Actuality, then, is a mode of existence; it is the way in which a thing exists that is not merely existing potentially. It is significant that he uses the adverbial form of δυναμις in this passage. Expressing his point in this way harkens back to those texts of the middle period I discussed earlier in which ενεργειᾳ serves as a synonym of εντελεχειᾳ. Notice, actuality is existing but "not in the way we *express* by potentially". The way in which the adverbial form was employed strained and extended towards an ontic meaning. At 1048a30 Aristotle is legitimizing this extension, and sanctioning such an extension for the nominal form as well. Thus, ενεργεια is the mode characteristic of all things ενεργειᾳ.

(4.6) EXTENSION BY ANALOGY

Aristotle continues his account of ενεργεια in Meta.IX.6 by setting up an analogy aimed at indicating the more useful, less apparent sense of δυναμις and ενεργεια;

> " we need not seek a definition for every term, but must comprehend the analogy; that which is actually building is to that which is capable of building, so is that which is awake to that which is asleep; and that which is seeing to that which has eyes shut, but has the power of sight; and that which is differentiated out of the matter to the matter; and the finished article to the raw material. Let actuality be defined by one member of this antithesis, and potential by the other. But things are not all said to exist actually in the same sense, but only by analogy - as A is in B or to B, so is C in or to D; for the relation is either that of κινησις to δυναμις, or that of ουσια to a particular 'υλη" (1048a38f).

Why, when Aristotle proceeds to explain the extended sense of ενεργεια (as *actuality*, or in its ontic sense), does he resort to analogy? When I first read this passage I thought the answer to this question was rather obvious. The analogy is aimed at describing ενεργεια-δυναμις correlation in the ontic sense by comparing it to the ενεργεια-δυναμις correlation in the kinetic sense. When I began to wade through the secondary literature on the subject, however, I was surprised to find that this was not the prevalent reading. Esteemed commentators such as Brentano and Ross suggest, rather, that the aim of the analogy is to show how the ενεργεια-δυναμις correlation is

applicable across all the categories. So, before mustering this passage in support of my developmental thesis, I need to argue on behalf of my interpretation of it. The question is; is it plausible to claim that the analogy is between the more obvious sense of ενεργεια (as explained in Meta.IX.1) and the less obvious sense (formerly expressed by εντελεχεια); or is the analogy simply one of bringing out the general relation by way of particular examples?

(4.6.1) Trans-category Extension

I suspect that the difference in interpretation of this passage depends on whether you stress the first line or the last. If you emphasize the final line, as I do, then the analogy is between (1) κινησις-δυναμις, and (2) ουσια-υλη. If, on the other hand, you emphasize the first line then the analogy is between (1') ενεργεια-δυναμις, and (2') the examples of relation listed. Ross argues that ενεργεια spans all categories, and so resists definition in the same way as the concepts of the Good, Being and Unity. Ενεργεια can only be known *via* analogy due to its trans-category application. Polansky states that

> "ενεργεια and δυναμις span all the categories of being; there are actual and potential substances, qualities, quantities, relations, times, places and so on. This is the very reason ενεργεια resists general definition but is grasped through analogy"(162).

Since ενεργεια is primary and non-demonstrable, one must come to understand what it signifies by inferring from examples of the general case. Under this interpretation, if one were to ask, "What does ενεργεια mean?", Aristotle response is that no definition is possible since it is a primitive term applicable to the several senses of καθ αυτο Being. Ενεργεια must be understood in correlation to δυναμις. This ενεργεια-δυναμις correlation can be recognized by analogy with many concrete examples of the correlation. Ενεργεια is to δυναμις as the man building a house is to the man merely capable of building but currently at rest; or as the marble sculpture is to the unworked marble block. A passage from the Physics seems to support this reading;

> "the underlying nature can be known by analogy; for as bronze is to the statue, the wood to the bed, or the matter and the formless before receiving form to anything which has form, so is the underlying nature to substance, i.e. the 'this' (το τοδε τι) or existent (το ον)"(191a8).

The ὑποκειμενον belies simple definition. It must be understood as a principle of a related pair, and its function in that correlation with substance can be inferred from concrete examples of it. What sense does this interpretation make of the last line, "for the relation is either that of κινησις to δυναμις, or that of ουσια to a particular ὑλη"? Polansky argues that this is simply a way of showing that the ενεργεια-δυναμις correlation is applicable to non-substance categories.[112] Presumably, it is obvious how the bronze Hermes is the actuality of the unsculpted bronze's potential to be Hermes. It is more difficult to see how 'hot' is the actuality of the 'heatible', or motion is the actuality of the movable. The relation of the κινησις to the δυναμις is just another, though more general, example of a non-substance category. The ενεργεια-δυναμις correlation is to be inferred from both concrete examples (e.g. finished article to the raw material), and the general examples (e.g. substance to matter).

(4.6.2) Analogy of Extension

My interpretation agrees with the former regarding why an analogy is needed, but disagrees regarding what the analogy is intended to illustrate. Ενεργεια cannot be defined because of its application across the categories of Being *per se*. Thus, the meaning of ενεργεια must be inferred from examples of it. But this does not mean that the analogy asserted is simply an attempt to show a general relation by means of concrete examples. The analogy is not enumerative; it is proportional. By *enumerative* analogy I mean the inference from many concrete examples of a relation to a more abstract conceptual relation. For example, I infer the abstract relation of *cause to effect* from the concrete examples

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[112] An interesting passage in support of this occurs in Meta.VIII; "Now none of these differentiae is substance, even when coupled with matter, yet in each there is something analogous to substance; and as with substances that which is predicated of the matter is ενεργεια itself, in all other definitions also it is what most resembles actuality"(1043a5).

of heat to flame, cue stroke to moving billiard ball, and studying math to achieving high grades in mathematics. I enumerate examples in order to communicate the meaning of an abstract relation. This is what Ross, Brentano and Polansky suggest Aristotle is doing. I think something more complicated is going on. In the Poetics, Aristotle explains the proportional analogy;

> "I call 'analogy' what happens when the second term is related to the first in the same way as the fourth to the third; the fourth term will then replace the second, or the second the fourth"(1457b16).

Understanding of one of the terms can be inferred from an understanding of the other three terms and of the primary relation. For example, I want to explain what a gringlesnak is. So, I explain that a gringlesnak is to gringle-tree as an acorn is to an oak. From this proportional analogy you should be able to determine that a gringlesnak is a gringle-tree seed. The basic formulation of the proportional analogy is:

As A is to B, so C is to D.

Terms A, B and C, and A's relation to B must be readily apparent, or agreed upon if this analogy is to be informative (i.e. if one is to gain a new understanding of term D). Aristotle's use of the proportional analogy in Meta.IX, however, seeks more than simply a new understanding of the fourth term. The *analogy of extension* seeks to describe a new meaning for a fifth term outside yet essentially linked to the proportion. There is some term E that is traditionally regarded as synonymous with A. The analogy is an attempt to show that C is synonymous with another sense of E. Such analogies are formulated:

As E *qua* A is to B, so E *qua* C is to D.

Consider the word *property* (E) as an example. *Asset* (A) refers to the same sort of thing as *property*, and is in this respect functionally synonymous. *Property* (E) *qua Asset* (A) bears an essential relation to its *possessor* (B). But I am trying to extend the meaning of *property* to refer to metaphysical attributes rather than merely physical possessions. So, I set up the other half of the analogy according to a basic metaphysical relation; *Attribute* (C) is to *Substance* (D). The resultant analogy of extension can be formulated thusly: As *property qua asset* is to its

possessor, so *property qua attribute* is to its *substance*. This sort of analogy is what Aristotle proposes in Meta.IX.

Aristotle is trying to explain ενεργεια in its ontic sense. The fundamental sense of ενεργεια, the most obvious sense both in terms of prior philosophic employment and etymological root, is activity. What he is trying to establish in the analogy is that ενεργεια is descriptive of both (i) κινησις *and* (ii) ουσια. As activity relates to its underlying capacity, so substance relates to its underlying matter. Ενεργεια is the exercise of faculty, and by analogous extension, it is the actualization of a potentiality (or realization of a potential being). This analogy is intended to move from the obvious relation of (i) the capacity-to-X to the exercise of that capacity, or the X-ing itself (e.g. carpentry to building), to (ii) the subtle relation of *being potentially* to *being actually* (e.g. artifact to material).[113] While the exercise of a capacity is strictly an ενεργεια, Aristotle uses κινησις in a broad sense to underscore its status as *activity*.[114] The analogy can be explicitly formulated as:

As ενεργεια και κινησις is to δυναμις, so ενεργεια και ουσια is to ὑλε.

Activity A is *in* capacity B, in the way the explosion is latent *in* the dynamite. Substance bears a relation *to* its matter, and the sculpture is *to* the bronze. Ενεργεια *qua actuality* is precisely the 'useful' sense that Aristotle is trying to draw out in Meta.IX.

Blair makes an interesting point in support of this reading (40-42). He suggests that there is a chiastic structure to the examples provided to illustrate the relation. They are all examples either of (a) activity to capacity or (b) actuality to potentiality.[115] The examples are arranged in the following order;

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[113] "we might suppose that Aristotle, by reflecting on δυναμις as the ability to do or suffer, isolates the more fundamental notion of ability in general, and extends δυναμις, and δυνατον by analogy, from the ability (or what is able) to do or suffer, to the ability (or what is able) to be"(Menn75).

[114] Χρησις would have been more appropriate, but κινησις draws the reader back to the earlier discussion of the κυριος sense of δυναμις (1047a30), and its relation to κινησις.

[115] The first two examples are specifically connected with the actuality of substance in Meta.V, 1017b6-9.

(b) wood-carving of Hermes : uncarved wood

(b) half-line : whole line

(a) the mind thinking : the mind capable of thought

(statement of the proportional analogy)

(a) the carpenter building : the carpenter not building

(a) the creature awake : the creature asleep

(a) the person seeing : the person with eyes shut

(b) something X differentiated out of this matter : this matter

(b) finished article : unfinished material

The examples are set up in such a way as to augment the proportional analogy. The relation in the first two examples is analogous to the relation in the third. Then, the general analogy is expressed, followed by a supporting group of examples, of which the relations expressed in the fourth and fifth are analogous to those of the remaining three. Rather than stacking up the examples as an enumerative analogy, the chiastic structure indicates that they provide inferential support for the proportional analogy. The essential point is that, in the ontic sense, ενεργεια is to δυναμις as substance relates to matter. The ontic sense is explained by means of an analogy with the more familiar kinetic sense.

(4.6.3) Being qua Activity

It is unfortunately possible to take this analogy too far. Some commentators, notably Blair and Kosman, understand the analogy to be suggesting that Being is activity. Actuality is not static, rather existence is a certain sort of activity. Blair explains;

> "Aristotle discovered in the course of his investigations that even apparently static things like rocks had an internal dynamism to them; and therefore for something to be a given kind of thing, its matter (the elements it was made of) had to be doing a certain kind of act - interacting or intermingling, if you will, in a certain way. Hence every εντελεχεια is in fact an ενεργεια"(B569).

In accordance with this interpretive hypothesis, the analogy takes on a slightly different meaning. As κινησις is the activity of potential *qua* potential, so substance is the *activity* of matter as such. As Kosman states the point, "substance, that is ουσια or be-ing, is an activity, an entity's manifesting what it

is."[116] *Potentially* predicates of a thing the power to *be* in a certain way, and *actually* is its be-ing in that way. For example, the materials for a house can be spoken of as an existing thing, a potential house. Substance, then, is the activity of being which is characteristic of a house. What is the function of a house? To provide 'covering for bodies and chattels'.[117] Thus, the form is the actuality of the thing; it is what a thing does. It might not be too extreme to understand substance in terms of the activity of subsisting, in the same way a house is a *sheltering*.

This interpretation is too radical to find sufficient support in the text. Certainly, if this had been Aristotle's intent there were many philosophic tools at his disposal with which to express it as such. In order to undermine two centuries of commentary one needs a much stronger case. Blair's argument in favour of the *Being qua Activity* hypothesis is as strong as could be hoped for, and yet it still fails to persuade.

Besides the merely formal reservations I have against such radical re-interpretations of Aristotle, the activity theory of Being seems at odds with the very examples Aristotle uses in Meta.IX to explain the ontic sense of ενεργεια. Are we to understand that the carved wood is acting like a Hermes? That the half-line is exercising a certain capacity of the whole? Or that 'this' matter is engaged in the sort of activity that differentiates it as a 'such'? Unless the statues are carved by Daedelus, this reading seems absurd.

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[116] Also, "actuality is activity, and being therefore is act; in any case, I'd like 'activity' to be heard throughout my readings of actuality(Kosman, Substance, Being and Ενεργεια 121, qt. Menn 76).

[117] "And so, in defining, those who define a house as stones, bricks and timbers, are speaking of the potential house, for these are the matter; but those who define it as a covering for bodies and chattels, or add some other similar differentia, speak of actuality; and those who combine both of these speak of a third kind of substance, which is composed of matter and form. For the formula that gives the differentiae seems to be an account of the form and the actuality, while that which gives the components is rather an account of the matter"(Meta.1043a14).

(4.7) REPLACEMENT OF εντελεχεια

There is a final twist to the complicated and confused relation between ενεργεια and εντελεχεια. Aristotle does not only extend the meaning of ενεργεια to encompass an ontic sense; he deliberately replaces εντελεχεια in the late period texts. The evidence in support of the assertion is decisive. As for the reasons Aristotle thought this replacement to be warranted, I can only offer some plausible suggestions.

The case for replacement depends almost solely upon the Metaphysics. Many accounts of key concepts of the middle period are altered in the late period writings by replacing εντελεχεια with ενεργεια. An obvious example concerns the description of ψυχη. In De Anima Aristotle describes the soul as an actuality of a body; ψυχη εστιν εντελεχεια (412a26). This formulation is altered, however, in Meta.VIII. In this late period book the soul is described exactly as it was in De Anima, as an actuality of a body. But it is not the εντελεχεια of a body, rather the soul is the ενεργεια σωματος (1043a35). There is no alternating use of ενεργεια and εντελεχεια in this context either. Εντελεχεια does not occur at all in Meta.VIII. It is a case in which Aristotle deliberately chooses to alter his former definition of ψυχη, using ενεργεια instead of εντελεχεια.

Aristotle conducts a similar replacement in regards to the account of Being. In Meta.V he describes one of the senses of Being; i.e. Being actually or potentially.

> "Again, 'Being' and 'that which is', in these cases we have mentioned, sometimes mean being , and sometimes εντελεχειᾳ. For we say both of that which sees potentially and of that which sees εντελεχειᾳ, that it is seeing, and both of that which can use knowledge and of that which is using it, that it knows, and both of that to which rest is already present and of that which can rest, that it rests"(1017b1).

The adverbial form of εντελεχεια is used in the book V lexicon. But in book VI the same division of the senses of Being is described, this time using the adverbial form of ενεργεια.

> "But since the unqualified term 'being' has several meanings, of which one was seen to be accidental, and another the true (non-being being false), while besides these there are the figures of predication, e.g. the 'what', quality, quantity, place, time, and any similar meanings which 'being' may have; and again besides all these there is that which is potentially or ενεργειᾳ"(1026b1).

The replacement of εντελεχεια in the description of Being is repeated in Meta.IX.10.

> "The terms Being and non-Being are used not only with reference to the categories of predication, and to κατα δυναμιν `η ενεργειαν, ... but also to denote truth and falsity"(1051b1).

These are just some of the explicit replacements in regards to the ontic sense of Being. Meta.IX can be taken, in its entirety, as the book in which Aristotle explains Being in the sense of actual and potential. And it is clear in IX that ενεργεια is the primary correlate of δυναμις.

Besides the soul and Being, Aristotle replaces εντελεχεια in the definition of κινησις. It is uncontroversial that parts of Meta.XI are excerpted from Phys.III. What is significant for present purposes is that the excerpt is not precise. There are a few slight changes. One of the changes stands out since it is at the very heart of the passage. In Phys.III Aristotle is trying to devise an adequate definition of motion. He ultimately decides upon the following definition;

> "it is the εντελεχεια of what is potentially, as such, is κινησις" (201b5).

But the Meta.XI passage makes one slight alteration;

> "the ενεργεια of what is potentially, as such, is κινησις"(1065b15).[118]

It is hard to imagine why Aristotle would leave the bulk of the excerpted material untouched, and yet change a key term in the centrally important definition of motion, if not to complete the replacement of εντελεχεια, and thus excise what had become an extraneous term from his philosophical vocabulary.

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[118] Ενεργεια replaces two other instances of εντελεχεια in the immediate context; the introductory line immediately preceding the cited passage, and in the example of building immediately following. Another interesting difference is that the order of the actual-potential pair is reversed in the Metaphysics.

The final piece of evidence concerns books VII and VIII of the Metaphysics. Both books discuss καθ αυτο Being, with special attention to the category of ουσια. The significant evidence is that VII explains substance solely in terms of εντελεχεια, i.e. ενεργεια is completely absent from VII. In the following book VIII ενεργεια predominates (20 instances) εντελεχεια (only 2 instances). As Blair argues (137-139), if Aristotle were attempting to replace εντελεχεια, he may have written an addendum in which ενεργεια was used to explain and revise crucial arguments of VII. This appears to be what is going on in these two books. For examples, in VII 1038b4 and 1039a3 ὑλη is described as underlying εντελεχεια, whereas in VIII at 1042a27 and 1043a20 ὑλη is described as underlying ενεργεια. In Meta.VII εντελεχεια is almost exclusively used in reference to form and matter, and in VIII ενεργεια is used to denote *actuality* in reference to form and matter at 1043a12, a25, and a32.

In summary, Aristotle replaces middle period uses of εντελεχεια with late period uses of ενεργεια in the definitions of Being, motion and the soul. There is also the curious connection between books VII and VIII of the Metaphysics. Taken together, they indicate that Aristotle intended more than to merely extend the scope of ενεργεια to cover those things or modalities formerly signified by εντελεχεια; he evidently proposed to replace εντελεχεια entirely. Coincidentally, in the Nicomachean Ethics, a work uncontroversially considered to belong to the late period, εντελεχεια is completely absent.[119]

(4.8) REASONS FOR REPLACING εντελεχεια

It seems a brute fact that ενεργεια was intended to replace εντελεχεια in Aristotle's philosophy. But this does raise a question as to why he considered such a replacement warranted. The confusion indicated by proximate use of the two terms in the middle period demands a clearer distinction, not full

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[119] I was, however, unable to locate any ontic use of ενεργεια in the Nicomachean Ethics or Politics.

replacement. In the Nicomachean Ethics the increased use of ἕξις serves to clarify the 1st-2nd actuality distinction. ἕξις signifies the 1st actuality, and ενεργεια signifies 2nd actuality, exclusively. There is room for εντελεχεια to stand as the fulfillment of either actuality, the complete condition of existing in either sense. But this is precisely what Aristotle does not do. Instead he retires the term εντελεχεια and uses ενεργεια to signify actuality, motion, non-kinetic activity and states. The only explanation is that Aristotle must have found εντελεχεια to be somehow inadequate or misleading. So much so that it would be better if it were replaced and the entire conceptual burden placed on ενεργεια, in its several senses. After much reflection and dead end delves into the secondary literature I have devised three possible explanations of why Aristotle would find fault with εντελεχεια.

First, the term εντελεχεια connotes possession of form rather than the expression of form. This engenders a false understanding of hylomorphism, in which form is thought to be a *part* of substance, rather than an inseparable aspect. This is supported by the care with which Aristotle revises the VII discussion of substance, using ενεργεια in VIII. In the example of the wooden carving of Hermes, one might consider the actuality of the carving in terms of the wood possessing a separable entity, i.e. the form and likeness of Hermes. But the wood and the likeness of Hermes are not separable, except in thought. They are not parts possessed by the substance; rather the form and matter are aspects of the whole. Aristotle switches from εντελεχεια to ενεργεια to avoid this misunderstanding.

Second, the term εντελεχεια connotes complete reality at the ἕξις point, not in the full activity. Complete reality of a living being is not in the 1st actuality, but in the 2nd. A creature is most fully itself when it is living, not when it merely maintains the capacity to live. Εντελεχεια confuses reality and completion. The soul is a completion, but it is not as such a full reality. Acting, thinking, and living in general constitute the most complete reality, i.e. are most truly real. For example, knowledge of French is the completion of the learning process (the ἕξις point), but it is not the *ultimate* completion, which is the act of speaking French.

Ross translates εντελεχεια as 'complete reality' and in doing so makes precisely the error that Aristotle tries to avoid by replacing εντελεχεια with ενεργεια. This misleading implication of εντελεχεια is evident in discussions of the soul, God and pleasure.

A third possibility is that εντελεχεια has *inactive* implications. Completeness conceived in terms of the possession of an end implies self-limiting achievement. Actuality thus understood seems analogous to the *cessation* of a process. The concept of εντελέχεια is too intimately connected with a prior potency. Εντελεχεια was established as the correlate for potentiality. It is the possession of form that was formerly mere potentiality. Such an understanding is incommensurable with the paradigm case of existence, God. God's immaterial activity is the perfection of Being, and so Aristotle is uncomfortable using a term to describe perfect reality, which cannot describe divine Being. Εντελεχεια implies prior process; ενεργεια may be in complete reality without presupposing any prior instance of mere potency. Ενεργεια has an active sense that does not have implications of coming-to-an-end, and is compatible with Thought Thinking Itself.

None of these reasons appears sufficient to warrant the replacement. Taken together, however, they may have convinced Aristotle that εντελεχεια had come to cause more misunderstanding than clarity.

(4.9) CONCLUSION

This study has resulted in three useful insights into the philosophy of Aristotle in general and the concept of ενεργεια in particular. First, the developmental approach revealed the range of senses that the term 'ενεργεια' signifies. In is nascent sense, it referred to the exercise of a capacity. It was then broadened to signify all activities, including motions and processes. But in order to explain psychological activities Aristotle had to make a distinction between kinetic and non-kinetic forms of ενεργεια. The adverbial forms naturally extended to mean *actually*. Eventually, in the late period of development, Aristotle explicitly extended the nominal 'ενεργεια' to signify actuality. The

multiplicity of senses is the reason there is such debate over the translation of the term. It is not an either/or situation. Energeia signifies each of these meanings in different works throughout the corpus.

The second benefit is the establishment of guidelines regarding how to translate the term most accurately in the different books. Ενεργεια unambiguously means *actuality* only in the late books of the Metaphysics. It denotes *exercise* in the earliest books (Protrepticus, Rhetoric). In the books of the middle period, despite the confusion, it is always best to translate the term as *activity*; although an awareness of the developmental nuance is necessary for understanding. The broad-strict distinction must be kept in mind, as well as the fact that the adverbial form signifies *actually*. In the Physics, De Caelo and De Anima, ενεργεια is in transition, and while it is still best to translate it as activity, the term is straining beyond the physical into the metaphysical, from description of causation to description of Being.

The third benefit is a deeper understanding of the relation between ενεργεια and other key terms. This detailed analysis of the connections between ενεργεια and δυναμις, κινησις and εντελεχεια provides the interpretive perspective needed to make sense out of notoriously difficult passages (such as the *tense test* and definition of motion).

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